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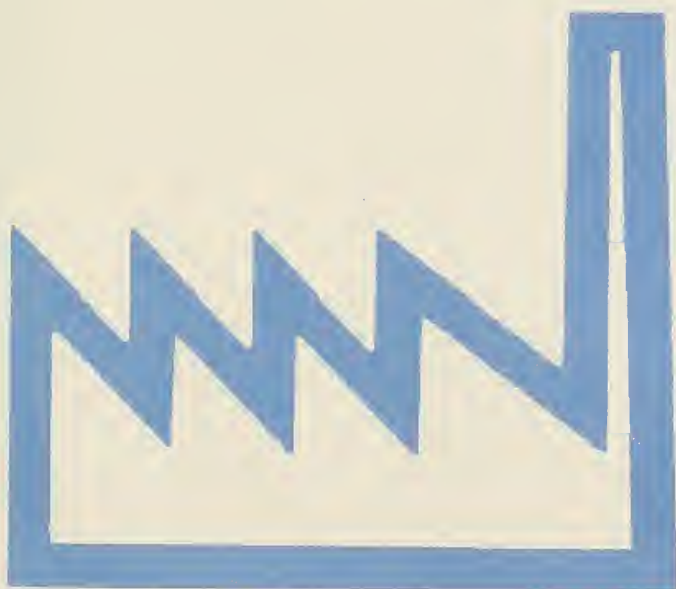
1987

Census of Manufactures

MC87-S-4

SUBJECT SERIES

Distribution of Sales by Class of Customer



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If you have any questions concerning the statistics in this report, call (301) 763-1503.

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INTRODUCTION

PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.

Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.

State and local Governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.

Trade associations study trends in their own and competing industries, and keep their members informed of market changes.

Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.

AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

HISTORICAL INFORMATION

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial

activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

AVAILABILITY OF MORE FREQUENT ECONOMIC DATA

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent

observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

SOURCES FOR MORE INFORMATION

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

CENSUS OF MANUFACTURES

General

This report, from the 1987 Census of Manufactures, is one of seven subject reports, each of which provides statistics on selected topics pertinent to the manufacturing sector. Additional subject reports will be issued on concentration ratios in manufacturing, legal form of organization, textile machinery in place, and a general National-level summary. Separate industry reports have been issued for groups of related industries and geographic reports for each of the 50 states and the District of Columbia.

The industry reports include such statistics as number of establishments, employment, payroll, value added by manufacture, cost of materials consumed, capital expenditures, product shipments, etc.

State reports present similar statistics for each state and its important metropolitan statistical areas (MSAs), counties, and places. Selected statistical totals for "all manufacturing" have been shown in the State reports for MSAs with 250 employees or more and for counties and places with 450 employees or more.

The *General Summary* report contains industry, product class, and geographic area statistics summarized in one report. The introduction to the *General Summary* discusses, at greater length, many of the subjects described in this introduction. For example, the *General Summary* text will discuss the relationship of value added by manufacture to national income by industry of origin, the changes in statistical concepts over the history of the censuses, and the valuation problems arising from intracompany transfers between manufacturing plants of a company and between manufacturing plants and sales offices and sales branches of a company.

Scope of Census and Definition of Manufacturing

The 1987 Census of Manufactures covers all establishments with one paid employee or more primarily engaged in manufacturing as defined in the 1987 *Standard Industrial*

*Classification (SIC) Manual*¹. This is the system of industrial classification developed by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget. This classification system is used by Government agencies as well as many organizations outside the Government.

The SIC Manual defines manufacturing as the mechanical or chemical transformation of substances or materials into new products. The assembly of component parts of products also is considered to be manufacturing if the resulting product is neither a structure nor other fixed improvement. These activities are usually carried on in plants, factories, or mills that characteristically use power-driven machines and materials-handling equipment.

Manufacturing production is usually carried on for the wholesale market, for transfers to other plants of the same company, or to the order of industrial users rather than for direct sale to the household consumer. Some manufacturers in a few industries sell chiefly at retail to household consumers through the mail, through house-to-house routes, or through salespersons. Some activities of a service nature (enameling, engraving, etc.) are included in manufacturing when they are performed primarily for trade. They are considered nonmanufacturing when they are performed primarily to the order of the household consumer.

Relationship Between Annual Survey of Manufactures and Census of Manufactures

The Bureau of the Census conducts the annual survey of manufactures (ASM) in each of the 4 years between the census of manufactures. The ASM is a probability-based sample of approximately 56,000 establishments and collects the same industry statistics (employment, payroll, value of shipments, etc.) as the census of manufactures. In addition to collecting the information normally requested on the census form, the establishments in the ASM sample are requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, costs of purchased services, and foreign content of materials consumed. Except for supplemental labor costs, the extra ASM items are collected only in census years.

Establishment Basis of Reporting

The census of manufactures is conducted on an establishment basis. A company operating at more than one location is required to file a separate report for each location. The ASM also is conducted on an establishment basis, but separate reports are filed for just those establishments selected in the sample. Companies engaged in

distinctly different lines of activity at one location are requested to submit separate reports if the plant records permit such a separation and if the activities are substantial in size.

In 1987, as in earlier years, a minimum size limit was set for inclusion of establishments in the census. All establishments employing one person or more at any time during the census year are included. The same size limitation has applied since 1947 in censuses and annual surveys of manufactures. In the 1939 and earlier censuses, establishments with less than \$5,000 value of products were excluded. The change in the minimum size limit in 1947 does not appreciably affect the historical comparability of the census figures except for data on number of establishments for a few industries. This report excludes information for separately operated administrative offices, warehouses, garages, and other auxiliary units that service manufacturing establishments of the same company (see *Auxiliaries*).

Manufacturing Universe and Census Report Forms

The 1987 Census of Manufactures universe includes approximately 350,000 establishments. The amounts of information requested from manufacturing establishments were dependent upon a number of factors. The more important considerations were the size of the company and whether it was included in the annual survey of manufactures. The methods of obtaining information for the various subsets of the universe to arrive at the aggregate figures shown in the publication are described below:

1. Small Single-Establishment Companies Not Sent a Report Form

In the 1987 Census of Manufactures, approximately 150,000 small single-establishment companies were excused from filing reports. Selection of these small establishments was done on an industry-by-industry basis and was based on annual payroll and total shipments data as well as on the industry classification codes contained in the administrative records of Federal agencies. The cutoffs were selected so that these administrative-record cases would account for no more than 3 percent of the value of shipments for all manufacturing. Generally, all single-establishment companies with less than 5 employees were excused, while all establishments with more than 20 employees were mailed forms.

Information on the physical location of the establishment, as well as information on payrolls, receipts (shipments), and industry classification, was obtained from the administrative records of other Federal agencies under special arrangements, which safeguarded their confidentiality. Estimates of data for these small establishments were developed using industry averages in conjunction with the administrative information. The value of shipments and cost

¹*Standard Industrial Classification Manual: 1987*. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock no. 041-001-00314-2.

of materials were not distributed among specific products and materials for these establishments but were included in the product and material "not specified by kind" (n.s.k.) categories.

The industry classification codes included in the administrative-record files were assigned on the basis of brief descriptions of the general activity of the establishment. As a result, an indeterminate number of establishments were erroneously coded at the four-digit SIC level. This was especially true whenever there was a relatively fine line of demarcation between industries or between manufacturing and nonmanufacturing activity.

Sometimes these administrative-record cases were only given a two- or three-digit SIC group. For the 1987 Census of Manufactures, these establishments were sent a separate classification form, which requested information on the products and services of the establishment. This form was used to code many of these establishments to the four-digit SIC level. Establishments that did not return the classification form were coded later to those four-digit SIC industries identified as "not elsewhere classified" (n.e.c.) within the given two- or three-digit industry groups.

As a result of these situations, a number of small establishments may have been misclassified by industry. However, such possible misclassification has no significant effect on the statistics other than on the number of companies and establishments.

The total establishment count for individual industries should be viewed as an approximation rather than a precise measurement. The counts for establishments with 20 employees or more are far more reliable than the count of total number of establishments.

2. Establishments Sent a Report Form

The 200,000 establishments covered in the mail canvass were divided into three groups:

- a. **ASM sample establishments**—This group consisted of approximately 56,000 establishments covering all the units of large manufacturing establishments as well as a sample of the medium and smaller establishments. The probability of selection was proportionate to size.

In a census of manufactures year, the ASM report form (MA-1000) replaces the first page of the regular census form for those establishments included in the ASM. In addition to information on employment, payroll, and other items normally requested on the regular census form, establishments in the ASM sample were requested to supply information on assets, capital expenditures, retirements, depreciation, rental payments, supplemental labor costs, and costs of purchased services.

The census part of the report form is one of approximately 200 versions containing product, material, and special inquiries. The diversity of manufacturing activities necessitated the use of this many forms to canvass the 459 manufacturing industries. Each form was developed for a group of related industries.

Appearing on each form was a list of products primary to the group of related industries as well as secondary products and miscellaneous services that establishments classified in these industries were likely to be performing. Respondents were requested to identify the products, the value of each product, and in a large number of cases, the quantity of the product shipped during the survey year. Space also was provided for the respondent to describe products not specifically identified on the form.

The report form also contained a materials-consumed inquiry, which varied from form to form depending on the industries being canvassed. The respondents were asked to review a list of materials generally used in their production processes. From this list, each establishment was requested to identify those materials consumed during the survey year, the cost of each, and in certain cases, the quantity consumed. Once again, space was provided for the respondent to describe significant material not identified on the form.

Finally, a wide variety of special inquiries was included to measure activities peculiar to a given industry, such as operations performed and equipment used.

- b. **Large and medium establishments (non-ASM)**—Approximately 84,000 establishments were included in this group. A variable cutoff, based on administrative-record payroll data and determined on an industry-by-industry basis, was used to select those establishments that were to receive 1 of the approximately 200 census of manufactures regular forms. The first page, requesting establishment data for items such as employment and payroll, was standard but did not contain the detailed statistics included on the ASM form. The product, material, and special inquiry sections supplied were based on the historical industry classification of the establishment.
- c. **Small single-establishment companies (non-ASM)**—This group consisted of approximately 60,000 establishments. For those industries where application of the variable cutoff for administrative-record cases resulted in a large number of small establishments being included in the mail canvass, an abbreviated or "short" form was used.

These establishments received 1 of the approximately 80 versions of the short form which requested summary product and material data and totals but no details on employment, payrolls, cost of materials, inventories, and capital expenditures.

Use of the short form has no adverse effect on published totals for the industry statistics; the same data were collected on the short form as on the long form. However, detailed information on materials consumed was not collected on the short form; thus, its use would increase the value of the n.s.k. categories.

Auxiliaries

Auxiliaries are establishments whose employees are primarily engaged in performing supporting services for other establishments of the same company, rather than for the general public or for other business firms. They can be at different locations from the establishments served or at the same location as one of those establishments but not operating as an integral part thereof and serving two establishments or more. Where auxiliary operations are conducted at the same location as the manufacturing operation and operate as an integral part thereof, they usually are included in the report for the operating manufacturing establishment.

Included in the broad category of auxiliaries are administrative offices. Employees in administrative offices are concerned with the general management of multiestablishment companies; i.e., with the general supervision and control of two units or more, such as manufacturing plants, mines, sales branches, or stores. The functions of these employees may include (1) program planning, including sales research and coordination of purchasing, production, and distribution; (2) company purchasing, including general contracts and purchasing methods; (3) company financial policy and accounting; (4) general engineering, including design of product machinery and equipment, and direction of engineering efforts conducted at the individual operation locations; (5) direction of company personnel matters; and (6) legal and patent matters.

Other types of auxiliaries serving the plants or central management of the company include purchasing offices, sales promotion offices, research and development organizations, etc.

Industry Classification of Establishments

Each of the establishments covered in the census was classified in 1 of 459 manufacturing industries in accordance with the industry definitions in the 1987 SIC Manual. The 1987 edition of this manual represents a major revision for manufacturing industries from the 1972 edition and its 1977 supplement. Appendix A of the 1987 manual notes the revisions in the four-digit industry levels between 1972/77 and 1987.

An industry is generally defined as a group of establishments producing the same product or a closely related group of products. The product groupings from which industry classifications are derived are based on considerations such as similarity of manufacturing processes, types of materials used, types of customers, and the like. The resulting group of establishments must be significant in terms of number, value added by manufacture, value of shipments, and number of employees. The system operates in such a way that the definitions progressively become narrower with successive additions of numerical digits. For 1987, there are 20 major groups (two-digit SIC), 139 industry groups (three-digit SIC), and 459 industries (four-digit SIC). This represents an expansion of four-digit industries from 452 in 1972/77 and a reduction of three-digit groups from 143 in 1972/77. Product classes and products of the manufacturing industries have been assigned codes based on the industry from which they originate. There are about 11,000 products identified by a seven-digit code. The seven-digit products are considered the primary products of the industry with the same four digits.

Accordingly, an establishment is usually classified in a particular industry on the basis of its major activity during a particular year; i.e., production of the products primary to that industry exceeds, in value, production of the products primary to any other single industry. In a few instances, however, the industry classification of an establishment is not only determined by the products it makes but also by the process employed in operations. Refining of nonferrous metals from ore or rolling and drawing of nonferrous metals (processes which involve heavy capitalization in specialized equipment) would be classified according to the process used during a census year. These establishments then would be "frozen" in that industry during the following ASM years.

In either a census or ASM year, establishments included in the ASM sample with certainty weight, other than those involved with heavily capitalized activities described above, are reclassified by industry only if the change in the primary activity from the prior year is significant or the change has occurred for 2 successive years. This procedure prevents reclassification when there are minor shifts in product mix.

In ASM years, establishments included in the ASM sample with noncertainty weight are not shifted from one industry classification to another. They are retained in the industry where they were classified in the base census year. However, in the following census year, these ASM plants are allowed to shift from one industry to another.

The result of these rules covering the switching of plants from one industry classification to another is that, at the aggregate level, some industries comprise different mixes of establishments between survey years, and establishment data for such industry statistics as employment and payroll may be tabulated in different industries between survey years. Hence, comparisons between prior-year and current-year published totals, particularly at the four-digit

SIC level, should be viewed with caution. This is particularly true for the comparison between the data shown for a census year with the data shown for the previous ASM year.

As previously noted, the small establishments that may have been misclassified by industry are usually administrative-record cases whose industry codes were assigned on the basis of incomplete descriptions of the general activity of the establishment. Such possible misclassifications have no significant effect on the statistics other than on the number of companies and establishments.

While some establishments produce only the primary products of the industry in which they are classified, all establishments of an industry rarely specialize to this extent. The industry statistics (employment, inventories, value added by manufacture, total value of shipments including resales and miscellaneous receipts, etc.) reflect not only the primary activities of the establishments in that industry but also their secondary activities.

CENSUS DISCLOSURE RULES

In accordance with Federal law governing census reports, no data are published that would disclose data for an individual establishment or company.

The disclosure analysis for statistics in this report is based on the total value of shipments.

SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Manufactures may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact specifications on the type and format of the data to be provided, should be directed to the Chief, Industry Division, Bureau of the Census, Washington, DC 20233.

ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

-	Represents zero.
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(NC)	Not comparable.
(S)	Withheld because estimate did not meet publication standards.
(X)	Not applicable.
(Z)	Less than half the unit shown.
do	Ditto.
n.e.c.	Not elsewhere classified.
n.s.k.	Not specified by kind.
pt.	Part.
r	Revised.
SIC	Standard Industrial Classification

Other abbreviations, such as lb, gal, yd, doz, bbl, and s tons, are used in the customary sense.

CONTACTS FOR DATA USERS

Subject Area	Contact	Phone
Census/ASM		
Durables	Kenneth Hansen	301-763-7304
Nondurables	Michael Zampogna	301-763-2510
Current Industrial Reports		
Durables	Thomas Flood	301-763-2518
Nondurables	Judy Dodds	301-763-5911
Import/Export Publications	Foreign Trade Division	301-763-5140
Industry Analysis and Forecasts	International Trade Administration	202-377-4356

EXPLANATORY TEXT

GENERAL

This report provides information on the primary channels through which manufacturers distributed their products in 1987, based on a survey conducted as part of the census of manufactures. It is the fifth comprehensive survey of this type; the first four covered 1939, 1958, 1967, and 1977.

Prior to 1987, products of the Apparel and Other Textile Industry, Major Group 23, and the Printing and Publishing Industry, Major Group 27 were excluded from the survey. These industries are included for 1987. Not all product groups could be shown because of the unreliability of the data tabulated, or because data were suppressed to avoid disclosing data for individual companies.

SCOPE OF THE SURVEY

Although this survey is conducted as part of the 1987 Census of Manufactures, the panel is a subsample of 19,500 establishments and 500 companies from the Annual Survey of Manufactures (ASM). The ASM is a sample of 56,000 establishments selected from the census universe of 350,000.

Five hundred companies were required to report on a company basis. These 500 companies, which were identified as having company shipments greater than \$500 million, received Form MC-9601 and were asked to report for all their manufacturing plants grouped together. They also received a product reference list to aid them in correctly reporting their product shipments. An additional 8,000 multiunit establishments received Form MC-9602 and were required to provide data for a sample of the establishments of the company.. Form MC-9603 was mailed to the 11,500 single-unit establishments.

Respondents were asked to report their value of product shipments by class of customer and the percentage of those shipments that were bought and sold without further processing (resales). Since it is recognized that there is no uniform system of sales analysis and companies vary in their recordkeeping, estimates based on any information available on the type of economic activity of their customers were accepted.

Respondents reporting on Form MC-9601 were asked to report separately the distribution by class of customer shipments and sales for each four-digit product group as applicable to the company's manufacturing operations. (See page 7 of the Introduction.) The classification system defined in the 1987 *Standard Industrial Classification (SIC)*

Manual provided the framework for the grouping of products. This is the system of classification developed over a period of years by experts on classification in Government and private industry under the guidance of the Office of Information and Regulatory Affairs, Office of Management and Budget.

Respondents reporting on Forms MC-9602 or MC-9603 were asked to report value of shipments according to class of customer but were not required to identify the product groups. The value of shipments for these establishments were coded into the four-digit product group that matched their 1987 Census of Manufactures industry classification. Forms MC-9602 and MC-9603 were establishment-level reports, and all shipments were assumed to represent one product; whereas, the MC-9601 reports were company-level reports and usually included many product groups.

DESCRIPTION OF SURVEY SAMPLE

Information for this survey was collected from a subsample of the mail portion of the 1986 ASM sample panel. The mail portion of the ASM is a probability sample of approximately 56,000 manufacturing establishments selected to represent the 220,000 establishments mailed schedules in the 1982 Census of Manufactures. The ASM sample is updated annually by adding new manufacturing establishments and removing those that went out of business or out of scope.

As noted in the Scope of the Survey, the sample for the survey on distribution of sales by class of customer consists of the largest 500 manufacturing companies, plus 8,000 additional multiunit establishments, and 11,500 single-unit establishments. The sample frame for selecting the 8,000 additional multiunits consisted of all mailed multiunit establishments in the 1986 ASM excluding establishments that were part of one of the largest 500 companies. The frame for selecting the 11,500 single units consisted of all mailed single units in the 1986 ASM. The single units and additional multiunits were sampled separately using probability proportionate to size sampling. Total value of shipments from the 1986 ASM was used as the measure of size for selecting the samples.

DESCRIPTION OF ESTIMATING PROCEDURE

The estimates in this report are ratio estimates designed to represent the 1987 Census of Manufactures universe. The estimates were developed using weighted survey data and a ratio adjustment to account for nonresponse, over and undersampling, and inclusion of resale shipments.

Since the survey sample is a subsample of the ASM the selection of the 19,500 sample establishments was conditional to these establishments having been selected as part of the ASM sample. Therefore, the probability of selection for a survey establishment is the product of the ASM selection probability and the conditional probability from the survey sample selection. The sampling weight is the inverse of the establishment's probability of selection.

Prior to producing the estimates, a ratio adjustment factor was computed for each four-digit product group. This factor was the inverse of the ratio of the product shipments reported in the census to the product shipments reported in this survey. This factor was applied to the weighted totals for each class of customer category.

QUALIFICATIONS OF THE DATA

The estimates developed from the sample are apt to differ somewhat from the results of a survey covering all companies in the sample lists but otherwise conducted under essentially the same conditions as the actual sample survey. The estimates of the magnitude of the sampling errors (the difference between the estimates obtained and the results theoretically obtained from a comparable, complete-coverage survey) are provided by the standard errors of estimates.

The particular sample selected for the class of customer survey is one of many similar probability samples that, by chance, might have been selected under the same specifications. Each of the possible samples would yield somewhat different sets of results, and the standard errors are measures of the variation of all the possible sample estimates around the theoretical, comparable, complete-coverage values.

Estimates of the standard errors have been computed from the sample data for selected statistics in this report. They are represented in the form of relative standard errors (the standard errors divided by the estimated values to which they refer).

In conjunction with its associated estimate, the relative standard error may be used to define confidence intervals (ranges that would include the comparable, complete-coverage value for specified percentages of all the possible samples).

The complete coverage value would be included in the range:

1. From one standard error below to one standard error above the derived estimate for about two-thirds of all possible samples.

2. From two standard errors below to two standard errors above the derived estimate for about 19 out of 20 of all possible samples.
3. From three standard errors below to three standard errors above the derived estimate for nearly all samples.

An inference that the comparable, complete-survey result would be within the indicated ranges would be correct in approximately the relative frequencies shown. Those proportions, therefore, may be interpreted as defining the confidence that the estimates from a particular sample would differ from complete-coverage results by as much as one, two, or three standard errors, respectively.

For example, suppose an estimated total is shown at 50,000 with an associated relative standard error of 2 percent, that is, a standard error of 1,000 (2 percent of 50,000). There is approximately 67 percent confidence that the interval 49,000 to 51,000 includes the complete-coverage total, about 95 percent confidence that the interval 48,000 to 52,000 includes the complete-coverage total, and almost certain confidence that the interval 47,000 to 53,000 includes the complete-coverage total.

In addition to the sample errors, the estimates are subject to various response and operational errors: errors of collection, reporting, coding, transcription, imputation for nonresponse, etc. These operational errors also would occur if a complete canvass were to be conducted under the same conditions as the survey. Explicit measures of their effects generally are not available. However, it is believed that most of the important operational errors were detected and corrected during the Census Bureau's review of the data for reasonableness and consistency. The small operational errors usually remain. To some extent, they are compensating in the aggregated totals shown. When important operational errors were detected too late to correct the estimates, the data were suppressed or were specifically qualified in the tables.

As derived, the estimated standard errors included part of the effect of the operational errors. The total errors, which depend upon the joint effect of the sampling and operational errors, are usually of the order of size indicated by the standard error, or moderately higher. However, for particular estimates, the total error may considerably exceed the standard errors shown. Any figures shown in the tables in this publication having an associated standard error exceeding 15 percent may be combined with higher level totals, creating a broader aggregate, which then may be of acceptable reliability.

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Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	All industries			20, Food and kindred products ¹			2011, Meat packing plants		
Total product shipments ² -----	2 349 599.7	100	(X)	305 753.1	100	(X)	41 226.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	225 130.4	10	4	26 113.0	9	9	3 130.5	8	12
Retail stores and outlets -----	30 911.2	1	6	8 378.0	3	8	145.0	(Z)	31
Other manufacturing establishments -----	207 276.4	9	5	9 564.6	3	6	1 414.3	3	12
Other nonmanufacturing establishments -----	11 451.9	(Z)	9	2 612.4	1	19	113.5	(Z)	28
Shipments to all other customers:									
Wholesalers ³ -----	502 356.1	21	2	142 591.7	47	5	25 218.6	61	14
Retailers -----	380 356.3	16	4	66 344.4	22	5	5 325.1	13	10
Manufacturers -----	576 027.7	25	2	38 267.1	13	5	4 994.3	12	8
Federal, State, and local governments -----	157 284.2	7	3	3 521.4	1	7	610.5	1	17
All other -----	258 805.6	11	3	8 360.5	3	11	274.9	1	25
Resales ⁴ -----	(X)	4	(X)	(X)	7	(X)	(X)	8	(X)
Adjustment ratio ⁵ -----	31	(X)	(X)	25	(X)	(X)	11	(X)	(X)
	2013, Sausages and other prepared meats			2015, Poultry slaughtering and processing			2021, Creamery butter		
Total product shipments ² -----	14 352.8	100	(X)	14 370.9	100	(X)	1 613.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	3 485.1	24	32	1 637.5	11	61	225.9	14	21
Retail stores and outlets -----	290.6	2	43	151.9	1	60	(D)	(D)	(X)
Other manufacturing establishments -----	282.2	2	28	978.9	7	38	(D)	(D)	(X)
Other nonmanufacturing establishments -----	6.0	(Z)	66	127.1	1	64	-	-	(X)
Shipments to all other customers:									
Wholesalers ³ -----	4 988.8	35	11	5 496.5	38	22	629.6	39	13
Retailers -----	4 688.0	33	17	4 305.7	30	34	109.9	7	17
Manufacturers -----	367.3	3	23	1 380.1	10	36	121.9	8	18
Federal, State, and local governments -----	202.7	1	47	74.5	1	36	50.3	3	14
All other -----	42.1	(Z)	35	218.7	2	65	(D)	(D)	(X)
Resales ⁴ -----	(X)	13	(X)	(X)	3	(X)	(X)	3	(X)
Adjustment ratio ⁵ -----	44	(X)	(X)	34	(X)	(X)	9	(X)	(X)
	2022, Cheese, natural and processed			2023, Dry, condensed, and evaporated dairy products			2024, Ice cream and frozen desserts		
Total product shipments ² -----	10 775.6	100	(X)	5 839.3	100	(X)	4 195.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	195.5	2	30	234.0	4	52	615.2	15	36
Retail stores and outlets -----	282.2	3	42	3.2	(Z)	51	474.7	11	28
Other manufacturing establishments -----	326.7	3	31	52.3	1	38	24.4	1	59
Other nonmanufacturing establishments -----	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³ -----	7 307.3	68	29	1 816.9	31	27	1 065.4	25	21
Retailers -----	761.5	7	27	2 303.0	39	32	1 739.6	41	23
Manufacturers -----	1 599.3	15	18	820.4	14	23	101.3	2	39
Federal, State, and local governments -----	261.5	2	38	168.5	3	26	152.3	4	59
All other -----	41.5	(Z)	54	441.1	8	39	22.2	1	41
Resales ⁴ -----	(X)	10	(X)	(X)	10	(X)	(X)	10	(X)
Adjustment ratio ⁵ -----	34	(X)	(X)	42	(X)	(X)	34	(X)	(X)
	2026, Fluid milk			2032, Canned specialties			2033, Canned fruits and vegetables		
Total product shipments ² -----	16 884.6	100	(X)	4 444.1	100	(X)	12 244.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	1 765.7	10	16	107.9	2	69	83.6	1	49
Retail stores and outlets -----	1 802.6	11	21	7.4	(Z)	41	587.8	5	27
Other manufacturing establishments -----	872.3	5	35	35.5	1	53	226.0	2	33
Other nonmanufacturing establishments -----	-	-	(X)	122.2	3	41	-	-	(X)
Shipments to all other customers:									
Wholesalers ³ -----	4 325.1	26	14	3 457.6	78	23	6 263.1	51	16
Retailers -----	6 489.5	38	15	496.8	11	24	4 091.8	33	19
Manufacturers -----	1 059.1	6	16	9.6	(Z)	29	596.4	5	20
Federal, State, and local governments -----	185.2	1	14	103.3	2	32	311.4	3	21
All other -----	385.1	2	21	103.7	2	27	84.2	1	23
Resales ⁴ -----	(X)	12	(X)	(X)	2	(X)	(X)	3	(X)
Adjustment ratio ⁵ -----	27	(X)	(X)	17	(X)	(X)	32	(X)	(X)
	2034, Dehydrated fruits, vegetables, and soups			2035, Pickles, sauces, and salad dressings			2037, Frozen fruits and vegetables		
Total product shipments ² -----	2 079.2	100	(X)	4 479.3	100	(X)	6 253.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	256.0	12	52	189.6	4	61	199.4	3	50
Retail stores and outlets -----	48.7	2	57	22.6	1	52	-	-	(X)
Other manufacturing establishments -----	90.9	4	56	2.0	(Z)	40	106.8	2	32
Other nonmanufacturing establishments -----	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³ -----	987.2	47	21	2 864.8	64	25	3 887.1	62	18
Retailers -----	297.3	14	31	756.3	17	24	1 262.8	20	21
Manufacturers -----	306.8	15	25	29.7	1	30	564.5	9	26
Federal, State, and local governments -----	10.7	1	57	53.7	1	52	67.8	1	25
All other -----	81.7	4	47	560.6	13	52	165.5	3	31
Resales ⁴ -----	(X)	2	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵ -----	36	(X)	(X)	28	(X)	(X)	34	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2038, Frozen specialties, n.e.c.			2041, Flour and other grain mill products			2043, Cereal breakfast foods		
Total product shipments²	5 252.1	100	(X)	4 690.1	100	(X)	5 081.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	461.1	9	26	34.9	1	42	(D)	(D)	(X)
Retail stores and outlets	129.0	2	30	-	-	(X)	-	-	(X)
Other manufacturing establishments	(D)	(D)	(X)	63.6	1	48	-	-	(X)
Other nonmanufacturing establishments	-	-	(X)	0.7	(Z)	81	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	3 571.1	68	17	2 176.2	46	23	2 093.2	41	1
Retailers	933.0	18	26	244.0	5	27	(D)	(D)	(X)
Manufacturers	(D)	(D)	(X)	1 860.8	40	29	(D)	(D)	(X)
Federal, State, and local governments	(D)	(D)	(X)	91.5	2	41	137.2	3	1
All other	92.7	2	51	218.4	5	45	(D)	(D)	(X)
Resales ⁴	(X)	6	(X)	(X)	7	(X)	(X)	6	(X)
Adjustment ratio ⁵	19	(X)	(X)	33	(X)	(X)	-2	(X)	(X)
	2044, Rice milling			2045, Prepared flour mixes and doughs			2046, Wet corn milling		
Total product shipments²	1 257.5	100	(X)	2 821.6	100	(X)	4 446.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	53.6	2	58	-	-	(X)
Retail stores and outlets	(D)	(D)	(X)	12.6	(Z)	30	-	-	(X)
Other manufacturing establishments	62.6	5	21	11.9	(Z)	44	52.7	1	34
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(D)	(D)	(X)	1 645.7	58	32	225.7	5	31
Retailers	219.3	17	32	952.4	34	44	2.1	(Z)	40
Manufacturers	128.7	10	14	74.2	3	40	4 142.3	93	23
Federal, State, and local governments	24.7	2	27	34.5	1	43	-	-	(X)
All other	235.1	19	17	36.7	1	38	23.4	1	27
Resales ⁴	(X)	1	(X)	(X)	5	(X)	(X)	2	(X)
Adjustment ratio ⁵	-5	(X)	(X)	36	(X)	(X)	16	(X)	(X)
	2047, Dog and cat food			2048, Prepared feeds, n.e.c.			2051, Bread, cake, and related products		
Total product shipments²	4 710.2	100	(X)	10 712.9	100	(X)	13 513.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	226.2	5	25	594.6	6	38	2 515.8	19	21
Retail stores and outlets	29.5	1	27	418.2	4	37	1 327.0	10	18
Other manufacturing establishments	16.7	(Z)	41	465.3	4	31	524.3	4	32
Other nonmanufacturing establishments	-	-	(X)	855.8	8	30	94.5	1	90
Shipments to all other customers:									
Wholesalers ³	2 155.0	46	18	1 889.1	18	16	6 196.9	46	24
Retailers	2 062.1	44	19	1 984.7	19	36	2 507.2	19	14
Manufacturers	103.9	2	23	1 746.6	16	22	115.2	1	27
Federal, State, and local governments	53.0	1	26	11.6	(Z)	69	133.9	1	22
All other	63.7	1	27	2 747.1	26	28	98.2	1	25
Resales ⁴	(X)	(D)	(X)	(X)	8	(X)	(X)	18	(X)
Adjustment ratio ⁵	13	(X)	(X)	29	(X)	(X)	26	(X)	(X)
	2052, Cookies and crackers			2053, Frozen bakery products, except bread			2061, Raw cane sugar		
Total product shipments²	5 853.2	100	(X)	1 372.7	100	(X)	1 223.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	120.5	9	26	-	-	(X)
Retail stores and outlets	168.9	3	19	33.7	2	30	-	-	(X)
Other manufacturing establishments	(D)	(D)	(X)	5.1	(Z)	43	66.1	5	89
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	3 446.2	59	11	933.4	68	17	43.1	4	30
Retailers	1 969.1	34	10	243.9	18	26	2.8	(Z)	46
Manufacturers	(D)	(D)	(X)	4.3	(Z)	37	1 110.0	91	17
Federal, State, and local governments	30.9	1	11	7.7	1	35	0.0	(Z)	0
All other	106.4	2	47	24.2	2	51	0.9	(Z)	79
Resales ⁴	(X)	8	(X)	(X)	(D)	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	4	(X)	(X)	38	(X)	(X)	23	(X)	(X)
	2062, Cane sugar refining			2063, Beet sugar			2064, Candy and other confectionery products		
Total product shipments²	2 438.6	100	(X)	1 831.7	100	(X)	6 910.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	-	-	(X)	211.1	3	28
Retail stores and outlets	-	-	(X)	-	-	(X)	215.0	3	28
Other manufacturing establishments	(D)	(D)	(X)	18.6	1	25	80.1	1	33
Other nonmanufacturing establishments	-	-	(X)	144.8	8	17	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	717.9	29	16	223.5	12	18	3 973.6	58	21
Retailers	544.6	22	21	220.4	12	29	1 769.0	26	23
Manufacturers	913.8	37	14	1 123.3	61	13	365.3	5	31
Federal, State, and local governments	3.7	(Z)	25	1.4	(Z)	17	90.5	1	42
All other	(D)	(D)	(X)	99.8	5	19	205.4	3	33
Resales ⁴	(X)	(D)	(X)	(X)	1	(X)	(X)	3	(X)
Adjustment ratio ⁵	8	(X)	(X)	9	(X)	(X)	45	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2066, Chocolate and cocoa products			2067, Chewing gum			2068, Salted and roasted nuts and seeds		
Total product shipments ²	3 122.4	100	(X)	868.7	100	(X)	2 064.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	144.8	5	70	228.4	26	32	(D)	(D)	(X)
Retail stores and outlets	49.3	2	1	-	-	(X)	(D)	(D)	(X)
Other manufacturing establishments	(D)	(D)	(X)	-	-	(X)	(D)	(D)	(X)
Other nonmanufacturing establishments	(D)	(D)	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	1 586.9	51	24	598.4	69	17	1 187.1	58	21
Retailers	(D)	(D)	(X)	41.3	5	49	528.5	26	23
Manufacturers	228.3	7	21	0.5	(Z)	32	109.1	5	31
Federal, State, and local governments	23.8	1	39	-	-	(X)	27.0	1	42
All other	9.7	(Z)	1	-	-	(X)	61.3	3	33
Resales ⁴	(X)	1	(X)	(X)	(D)	(X)	(X)	1	(X)
Adjustment ratio ⁵	-30	(X)	(X)	10	(X)	(X)	-24	(X)	(X)
	2074, Cottonseed oil mills			2075, Soybean oil mills			2076, Vegetable oil mills, n.e.c.		
Total product shipments ²	434.6	100	(X)	7 728.9	100	(X)	490.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	19.6	5	74	357.8	5	15	(D)	(D)	(X)
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	4.6	1	62	761.2	10	12	(D)	(D)	(X)
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	228.1	52	30	1 224.2	16	9	(D)	(D)	(X)
Retailers	24.5	6	47	(D)	(D)	(X)	(Z)	(Z)	(X)
Manufacturers	153.4	35	38	5 132.5	66	9	415.0	85	5
Federal, State, and local governments	-	-	(X)	(D)	(D)	(X)	-	-	(X)
All other	4.4	1	43	(D)	(D)	(X)	(D)	(D)	(X)
Resales ⁴	(X)	13	(X)	(X)	9	(X)	(X)	5	(X)
Adjustment ratio ⁵	38	(X)	(X)	3	(X)	(X)	1	(X)	(X)
	2077, Animal and marine fats and oils			2079, Edible fats and oils, n.e.c.			2082, Malt beverages		
Total product shipments ²	2 168.0	100	(X)	4 694.1	100	(X)	13 521.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	51.0	2	39	122.1	3	34	223.9	2	42
Retail stores and outlets	-	-	(X)	28.3	1	52	0.1	(Z)	67
Other manufacturing establishments	31.3	1	33	416.3	9	49	83.1	1	67
Other nonmanufacturing establishments	28.2	1	58	0.7	(Z)	43	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	503.7	23	39	2 601.3	55	22	12 974.0	96	32
Retailers	5.9	(Z)	61	255.0	5	19	78.9	1	52
Manufacturers	1 307.7	60	29	1 223.6	26	22	17.8	(Z)	64
Federal, State, and local governments	31.9	1	73	23.7	1	23	3.6	(Z)	67
All other	208.4	10	73	23.1	(Z)	26	139.7	1	65
Resales ⁴	(X)	7	(X)	(X)	2	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	53	(X)	(X)	27	(X)	(X)	45	(X)	(X)
	2083, Malt			2084, Wines, brandy, and brandy spirits			2085, Distilled and blended liquors		
Total product shipments ²	534.3	100	(X)	3 162.3	100	(X)	3 187.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	83.6	3	43	(D)	(D)	(X)
Retail stores and outlets	-	-	(X)	1.0	(Z)	45	-	-	(X)
Other manufacturing establishments	11.7	2	52	198.3	6	39	(D)	(D)	(X)
Other nonmanufacturing establishments	8.5	2	54	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	146.1	27	80	2 522.3	80	21	1 847.9	58	1
Retailers	-	-	(X)	248.6	8	47	(D)	(D)	(X)
Manufacturers	358.6	67	32	37.2	1	74	(D)	(D)	(X)
Federal, State, and local governments	-	-	(X)	51.3	2	38	21.4	1	25
All other	9.4	2	45	20.0	1	38	(D)	(D)	(X)
Resales ⁴	(X)	(D)	(X)	(X)	1	(X)	(X)	12	(X)
Adjustment ratio ⁵	29	(X)	(X)	18	(X)	(X)	-6	(X)	(X)
	2086, Bottled and canned soft drinks			2087, Flavoring extracts and syrups, n.e.c.			2091, Canned and cured fish and seafoods		
Total product shipments ²	19 611.7	100	(X)	4 925.6	100	(X)	862.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	4 674.9	24	33	819.8	17	48	(D)	(D)	(X)
Retail stores and outlets	787.9	4	21	18.2	(Z)	48	4.2	(Z)	72
Other manufacturing establishments	941.5	5	34	130.5	3	52	-	-	(X)
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	149.4	17	88
Shipments to all other customers:									
Wholesalers ³	5 405.6	28	26	419.4	9	24	387.5	45	49
Retailers	5 908.1	30	7	999.1	20	42	217.1	25	46
Manufacturers	1 561.4	8	23	2 523.0	51	35	-	-	(X)
Federal, State, and local governments	145.1	1	17	2.5	(Z)	39	(D)	(D)	(X)
All other	187.2	1	19	13.1	(Z)	32	34.8	4	51
Resales ⁴	(X)	12	(X)	(X)	1	(X)	(X)	2	(X)
Adjustment ratio ⁵	23	(X)	(X)	23	(X)	(X)	52	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	
2092, Fresh or frozen prepared fish	2092, Fresh or frozen prepared fish			2095, Roasted coffee			2096, Potato chips and similar snacks			
	5 103.7	100	(X)	5 466.6	100	(X)	5 005.8	100	(X)	
	Shipments to other establishments of same company:									
	Wholesale establishments (including sales offices) ³	192.5	4	40	512.5	9	50	313.0	6	36
	Retail stores and outlets	19.1	(Z)	58	142.6	3	50	184.1	4	42
	Other manufacturing establishments	85.3	2	45	1.6	(Z)	86	6.3	(Z)	22
	Other nonmanufacturing establishments	121.6	2	94	-	-	(X)	250.0	5	44
	Shipments to all other customers:									
	Wholesalers ³	3 797.4	74	21	2 118.9	39	28	1 942.5	39	19
	Retailers	745.9	15	25	2 023.5	37	40	1 911.1	38	31
	Manufacturers	93.1	2	43	192.6	4	1	306.9	6	17
	Federal, State, and local governments	19.9	(Z)	33	73.2	1	58	55.9	1	34
	All other	28.8	1	43	401.5	7	48	36.1	1	19
	Resales ⁴	(X)	11	(X)	(X)	11	(X)	(X)	5	(X)
	Adjustment ratio ⁵	27	(X)	(X)	50	(X)	(X)	8	(X)	(X)
2097, Manufactured ice	2097, Manufactured ice			2098, Macaroni and spaghetti			2099, Food preparations, n.e.c.			
	282.7	100	(X)	974.4	100	(X)	10 670.7	100	(X)	
	Shipments to other establishments of same company:									
	Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	23.0	2	64	674.1	6	36
	Retail stores and outlets	(S)	(S)	(X)	59.7	6	63	395.8	4	42
	Other manufacturing establishments	(S)	(S)	(X)	7.7	1	55	29.9	(Z)	22
	Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	502.1	5	44
	Shipments to all other customers:									
	Wholesalers ³	(S)	(S)	(X)	751.7	77	31	4 259.0	40	19
	Retailers	(S)	(S)	(X)	119.1	12	61	3 924.9	37	31
	Manufacturers	(S)	(S)	(X)	0.2	(Z)	46	655.4	6	17
	Federal, State, and local governments	(S)	(S)	(X)	12.5	1	59	120.1	1	34
	All other	(S)	(S)	(X)	0.4	(Z)	64	109.4	1	19
	Resales ⁴	(X)	3	(X)	(X)	4	(X)	(X)	3	(X)
	Adjustment ratio ⁵	(S)	(X)	(X)	21.8	(X)	(X)	40.7	(X)	(X)
21, Tobacco products	21, Tobacco products			2111, Cigarettes			2121, Cigars			
	20 152.6	100	(X)	16 746.2	100	(X)	204.1	100	(X)	
	Shipments to other establishments of same company:									
	Wholesale establishments (including sales offices) ³	332.2	2	21	(D)	(D)	(X)	-	-	(X)
	Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
	Other manufacturing establishments	825.9	4	14	(D)	(D)	(X)	-	-	(X)
	Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
	Shipments to all other customers:									
	Wholesalers ³	13 816.8	69	9	12 829.6	77	10	112.0	55	68
	Retailers	2 835.1	14	12	(D)	(D)	(X)	91.0	45	63
	Manufacturers	1 313.3	7	11	-	-	(X)	-	-	(X)
	Federal, State, and local governments	427.5	2	10	422.3	3	10	1.2	1	68
	All other	601.9	3	11	(D)	(D)	(X)	-	-	(X)
	Resales ⁴	(X)	3	(X)	(X)	(D)	(X)	(X)	(D)	(X)
	Adjustment ratio ⁵	4	(X)	(X)	3	(X)	(X)	6	(X)	(X)
2131, Chewing and smoking tobacco	2131, Chewing and smoking tobacco			2141, Tobacco stemming and redrying			22, Textile mill products			
	1 031.8	100	(X)	2 170.5	100	(X)	61 518.4	100	(X)	
	Shipments to other establishments of same company:									
	Wholesale establishments (including sales offices) ³	-	-	(X)	(D)	(D)	(X)	1 771.7	3	19
	Retail stores and outlets	-	-	(X)	-	-	(X)	727.5	1	35
	Other manufacturing establishments	(D)	(D)	(X)	(D)	(D)	(X)	11 451.1	19	10
	Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	187.0	(Z)	75
	Shipments to all other customers:									
	Wholesalers ³	(D)	(D)	(X)	(D)	(D)	(X)	10 797.8	18	10
	Retailers	(D)	(D)	(X)	-	-	(X)	9 449.5	15	8
	Manufacturers	(D)	(D)	(X)	(D)	(D)	(X)	25 549.8	42	6
	Federal, State, and local governments	4.1	(Z)	11	-	-	(X)	274.9	(Z)	14
	All other	13.1	1	18	(D)	(D)	(X)	1 309.2	2	13
	Resales ⁴	(X)	(D)	(X)	(X)	9	(X)	(X)	1	(X)
	Adjustment ratio ⁵	5	(X)	(X)	7	(X)	(X)	32	(X)	(X)
2211, Broadwoven fabric mills, cotton	2211, Broadwoven fabric mills, cotton			2221, Broadwoven fabric mills, manmade fiber and silk			2231, Broadwoven fabric mills, wool			
	5 405.6	100	(X)	7 772.0	100	(X)	1 146.7	100	(X)	
	Shipments to other establishments of same company:									
	Wholesale establishments (including sales offices) ³	179.8	3	52	246.8	3	41	-	-	(X)
	Retail stores and outlets	16.2	(Z)	39	-	-	(X)	(D)	(D)	(X)
	Other manufacturing establishments	669.6	12	23	2 546.7	33	20	(D)	(D)	(X)
	Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
	Shipments to all other customers:									
	Wholesalers ³	1 223.2	23	31	1 589.2	20	25	38.2	3	23
	Retailers	724.8	13	37	18.7	(Z)	87	2.4	(Z)	82
	Manufacturers	2 447.7	45	15	3 037.8	39	14	793.0	69	18
	Federal, State, and local governments	5.0	(Z)	28	96.6	1	30	71.2	6	23
	All other	139.3	3	32	236.2	3	28	(D)	(D)	(X)
	Resales ⁴	(X)	(Z)	(X)	(X)	(Z)	(X)	(X)	1	(X)
	Adjustment ratio ⁵	20	(X)	(X)	21	(X)	(X)	7	(X)	(X)

See footnotes at end of table.

Table 1. **Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2241, Narrow fabric mills			2251, Women's hosiery, except socks			2252, Hosiery, n.e.c.		
Total product shipments²	1 170.6	100	(X)	1 514.5	100	(X)	1 902.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	2.6	(Z)	88	105.1	7	59	7.7	(Z)	41
Retail stores and outlets	-	-	(X)	(D)	(D)	(X)	107.7	6	97
Other manufacturing establishments	2.0	(Z)	76	4.3	(Z)	59	348.9	18	52
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	42.9	4	36	52.5	3	26	84.6	4	20
Retailers	42.9	4	81	761.3	50	21	1 313.3	69	20
Manufacturers	1 034.5	88	34	72.4	5	52	36.7	2	36
Federal, State, and local governments	42.0	4	41	0.8	(Z)	50	1.8	(Z)	44
All other	3.6	(Z)	61	(D)	(D)	(X)	1.7	(Z)	43
Resales ⁴	(X)	1	(X)	(X)	(D)	(X)	(X)	2	(X)
Adjustment ratio ⁵	55	(X)	(X)	14	(X)	(X)	38	(X)	(X)
	2253, Knit outerwear mills			2254, Knit underwear mills			2257, Weft knit fabric mills		
Total product shipments²	3 293.5	100	(X)	803.2	100	(X)	3 539.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	51.3	2	71	-	-	(X)	237.0	7	69
Retail stores and outlets	58.3	2	43	-	-	(X)	0.2	(Z)	69
Other manufacturing establishments	29.1	1	56	-	-	(X)	522.7	15	42
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	22.4	1	69
Shipments to all other customers:									
Wholesalers ³	912.9	28	30	26.5	3	40	360.4	10	43
Retailers	2 011.8	61	18	763.8	95	28	380.7	11	61
Manufacturers	212.9	6	28	0.4	(Z)	51	2 012.0	57	28
Federal, State, and local governments	10.6	(Z)	39	-	-	(X)	0.3	(Z)	67
All other	6.6	(Z)	50	12.6	2	51	3.5	(Z)	45
Resales ⁴	(X)	2	(X)	(X)	(D)	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	32	(X)	(X)	23	(X)	(X)	48	(X)	(X)
	2258, Lace and warp knit fabric mills			2259, Knitting mills, n.e.c.			2261, Finishing plants, cotton		
Total product shipments²	2 106.5	100	(X)	222.4	100	(X)	1 604.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	30.5	2	92
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(Z)	(Z)	76
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	159.4	10	45
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	161.0	10	59
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	31.0	2	59
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	1 212.7	76	35
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	2.3	(Z)	91
All other	(S)	(S)	(X)	(S)	(S)	(X)	7.6	(Z)	66
Resales ⁴	(X)	(Z)	(X)	(X)	4	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	57.9	(X)	(X)
	2262, Finishing plants, manmade			2269, Finishing plants, n.e.c.			2273, Carpets and rugs		
Total product shipments²	3 537.3	100	(X)	1 033.2	100	(X)	9 291.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	184.3	5	55	110.6	11	61	499.8	5	42
Retail stores and outlets	0.1	(Z)	61	-	-	(X)	1.3	(Z)	49
Other manufacturing establishments	698.4	20	30	226.2	22	50	1 455.4	16	46
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	378.8	11	40	34.7	3	60	3 319.3	36	89
Retailers	163.8	5	47	71.4	7	66	2 125.4	23	70
Manufacturers	2 109.0	60	39	549.2	53	32	1 395.6	15	67
Federal, State, and local governments	0.4	(Z)	61	0.9	(Z)	66	26.0	(Z)	27
All other	2.4	(Z)	61	40.1	4	44	468.4	5	89
Resales ⁴	(X)	9	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	37	(X)	(X)	28	(X)	(X)	24	(X)	(X)
	2281, Yarn spinning mills			2282, Throwing and winding mills			2284, Thread mills		
Total product shipments²	7 711.2	100	(X)	2 243.8	100	(X)	677.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	-	-	(X)	5.5	1	72
Retail stores and outlets	3.2	(Z)	59	-	-	(X)	-	-	(X)
Other manufacturing establishments	3 011.3	39	86	394.8	18	10	65.9	10	53
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	441.2	6	58	332.4	15	22	-	-	(X)
Retailers	223.8	3	41	202.7	9	43	-	-	(X)
Manufacturers	3 998.2	52	87	1 304.3	58	13	589.6	87	31
Federal, State, and local governments	-	-	(X)	1.3	78	78	0.2	(Z)	70
All other	33.5	(Z)	78	8.4	(Z)	28	15.7	2	58
Resales ⁴	(X)	(Z)	(X)	(X)	(Z)	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	37	(X)	(X)	4	(X)	(X)	40	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
2295, Coated fabrics, not rubberized				2296, Tire cord and fabrics			2297, Nonwoven fabrics		
Total product shipments²	1 323.4	100	(X)	896.6	100	(X)	2 423.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	20.2	2	57	—	—	(X)	89.8	4	52
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	178.5	13	44	482.2	54	38	29.1	1	46
Other nonmanufacturing establishments	0.2	(Z)	66	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	111.3	8	43	18.6	2	70	499.7	21	30
Retailers	16.8	1	43	—	—	(X)	234.6	10	43
Manufacturers	977.8	74	23	386.8	43	45	1 445.6	60	39
Federal, State, and local governments	4.3	(Z)	48	—	—	(X)	1.2	(Z)	66
All other	14.3	1	37	8.9	1	70	123.5	5	59
Resales ⁴	(X)	3	(X)	(X)	(D)	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	43	(X)	(X)	49	(X)	(X)	44	(X)	(X)
2298, Cordage and twine				2299, Textile goods, n.e.c.			23, Apparel and other textile products		
Total product shipments²	475.4	100	(X)	1 424.5	100	(X)	62 119.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	—	—	(X)	1 959.4	3	21
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	3 883.6	6	30
Other manufacturing establishments	(S)	(S)	(X)	238.6	17	80	4 016.1	6	25
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	178.8	(Z)	73
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	47.4	3	71	7 607.9	12	21
Retailers	(S)	(S)	(X)	59.3	4	22	35 640.4	57	7
Manufacturers	(S)	(S)	(X)	992.3	70	51	6 534.3	11	11
Federal, State, and local governments	(S)	(S)	(X)	3.4	(Z)	75	933.8	2	38
All other	(S)	(S)	(X)	83.5	6	65	1 365.2	2	23
Resales ⁴	(X)	9	(X)	(X)	7	(X)	(X)	3	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	16	(X)	(X)	49	(X)	(X)
2311, Men's and boys' suits and coats				2321, Men's and boys' shirts			2322, Men's and boys' underwear and nightwear		
Total product shipments²	2 877.0	100	(X)	3 842.2	100	(X)	996.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	421.9	15	57	88.6	2	92	3.7	(Z)	1
Retail stores and outlets	153.6	5	75	12.3	(Z)	44	(D)	(D)	(X)
Other manufacturing establishments	241.0	8	63	441.9	12	39	18.7	2	1
Other nonmanufacturing establishments	—	—	(X)	6.0	(Z)	50	0.3	(Z)	1
Shipments to all other customers:									
Wholesalers ³	107.8	4	89	541.7	14	41	(D)	(D)	(X)
Retailers	1 815.8	63	33	2 277.8	59	25	823.0	83	1
Manufacturers	105.4	4	47	347.7	9	40	14.6	1	1
Federal, State, and local governments	3.3	(Z)	75	55.4	1	77	(D)	(D)	(X)
All other	28.4	1	82	70.7	2	45	5.2	1	1
Resales ⁴	(X)	(D)	(X)	(X)	6	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	56	(X)	(X)	25	(X)	(X)	—8	(X)	(X)
2323, Men's and boys' neckwear				2325, Men's and boys' trousers and slacks			2326, Men's and boys' work clothing		
Total product shipments²	421.5	100	(X)	5 474.4	100	(X)	1 419.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	659.3	12	51	165.0	12	37
Retail stores and outlets	(S)	(S)	(X)	41.9	1	55	(D)	(D)	(X)
Other manufacturing establishments	(S)	(S)	(X)	57.5	1	57	(D)	(D)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	788.5	14	47	128.8	9	38
Retailers	(S)	(S)	(X)	3 629.6	66	22	1 025.0	72	28
Manufacturers	(S)	(S)	(X)	231.9	4	44	80.8	6	47
Federal, State, and local governments	(S)	(S)	(X)	43.3	1	53	(D)	(D)	(X)
All other	(S)	(S)	(X)	22.5	(Z)	96	8.1	1	69
Resales ⁴	(X)	6	(X)	(X)	(Z)	(X)	(X)	2	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	34	(X)	(X)	2	(X)	(X)
2329, Men's and boys' clothing, n.e.c.				2331, Women's, misses', and juniors' blouses and shirts			2335, Women's, misses', and juniors' dresses		
Total product shipments²	2 256.4	100	(X)	4 178.1	100	(X)	5 346.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	6.8	(Z)	82	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	195.4	9	76	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	—	—	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	—	—	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	176.2	8	50	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	1 858.4	82	1	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(D)	(D)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(D)	(D)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	10.2	(Z)	1	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	(D)	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	—8	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2337, Women's, misses', and juniors' suits and coats			2339, Women's, misses', and juniors' outerwear, n.e.c.			2341, Women's and children's underwear		
Total product shipments²	3 884.9	100	(X)	5 952.6	100	(X)	2 591.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	77.4	1	77	207.2	8	54
Retail stores and outlets	(S)	(S)	(X)	614.4	10	43	286.2	11	49
Other manufacturing establishments	(S)	(S)	(X)	55.7	1	61	68.1	3	79
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	15.9	1	54
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	524.1	9	51	171.1	7	49
Retailers	(S)	(S)	(X)	4 337.5	73	22	1 636.2	63	21
Manufacturers	(S)	(S)	(X)	310.1	5	27	91.1	4	26
Federal, State, and local governments	(S)	(S)	(X)	3.1	(Z)	46	20.6	1	42
All other	(S)	(S)	(X)	30.4	1	53	94.9	4	92
Resales ⁴	(X)	9	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	52	(X)	(X)	29	(X)	(X)
	2342, Brassieres, girdles, and allied garments			2353, Hats, caps, and millinery			2361, Girls' and children's dresses and blouses		
Total product shipments²	983.1	100	(X)	604.1	100	(X)	1 607.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Retail stores and outlets	404.0	41	41	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	131.9	13	66	-	-	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	6.1	1	48	167.8	28	71	(S)	(S)	(X)
Retailers	429.3	44	37	401.9	67	55	(S)	(S)	(X)
Manufacturers	11.0	1	66	22.5	4	59	(S)	(S)	(X)
Federal, State, and local governments	0.9	(Z)	85	2.5	(Z)	74	(S)	(S)	(X)
All other	-	-	(X)	9.4	2	65	(S)	(S)	(X)
Resales ⁴	(X)	5	(X)	(X)	5	(X)	(X)	1	(X)
Adjustment ratio ⁵	44	(X)	(X)	60	(X)	(X)	(S)	(X)	(X)
	2369, Girls' and children's outerwear, n.e.c.			2371, Fur goods			2381, Fabric dress and work gloves		
Total product shipments²	1 959.8	100	(X)	399.2	100	(X)	192.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(D)	(D)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(D)	(D)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	44.3	23	75
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	52.6	27	65
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(D)	(D)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Resales ⁴	(X)	1	(X)	(X)	4	(X)	(X)	4	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	-19	(X)	(X)
	2384, Robes and dressing gowns			2385, Waterproof outerwear			2386, Leather and sheep-lined clothing		
Total product shipments²	502.3	100	(X)	318.1	100	(X)	175.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	71.8	41	91
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	90.9	52	60
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	7.6	4	45
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	4.7	(Z)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	-	3	81
Resales ⁴	(X)	8	(X)	(X)	10	(X)	(X)	12	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(Z)	(X)	(X)
	2387, Apparel belts			2389, Apparel and accessories, n.e.c.			2391, Curtains and draperies		
Total product shipments²	546.8	100	(X)	458.5	100	(X)	1 394.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	11	(X)	(X)	5	(X)	(X)	4	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2392, Housefurnishings, n.e.c.			2393, Textile bags			2394, Canvas and related products		
Total product shipments²	4 428.9	100	(X)	544.2	100	(X)	983.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	9	(X)	(X)	5	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	2395, Pleating and stitching			2396, Automotive and apparel trimmings			2397, Schiffli machine embroideries		
Total product shipments²	611.0	100	(X)	4 506.1	100	(X)	251.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	0.1	(Z)	1	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	2 617.9	58	38	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	110.9	2	34	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	295.7	7	51	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	1 053.9	23	27	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	1.0	(Z)	0	(S)	(S)	(X)
All other	(S)	(S)	(X)	426.5	9	37	(S)	(S)	(X)
Resales ⁴	(X)	3	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	36	(X)	(X)	(S)	(X)	(X)
	2399, Fabricated textile products, n.e.c.			24, Lumber and wood products			2411, Logging		
Total product shipments²	2 411.5	100	(X)	67 079.7	100	(X)	10 583.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	9.6	(Z)	88	4 841.5	7	19	(S)	(S)	(X)
Retail stores and outlets	-	-	(X)	507.6	1	40	(S)	(S)	(X)
Other manufacturing establishments	6.6	(Z)	33	8 211.6	12	30	(S)	(S)	(X)
Other nonmanufacturing establishments	137.6	6	94	314.2	(Z)	80	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	338.6	14	37	26 887.5	40	9	(S)	(S)	(X)
Retailers	396.6	16	35	8 775.2	13	12	(S)	(S)	(X)
Manufacturers	1 313.8	54	24	13 475.3	20	10	(S)	(S)	(X)
Federal, State, and local governments	104.4	4	30	323.9	(Z)	40	(S)	(S)	(X)
All other	104.3	4	36	3 742.9	6	22	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	3	(X)	(X)	5	(X)
Adjustment ratio ⁵	30	(X)	(X)	62	(X)	(X)	(S)	(X)	(X)
	2421, Sawmills and planing mills, general			2426, Hardwood dimension and flooring mills			2429, Special product sawmills, n.e.c.		
Total product shipments²	16 964.5	100	(X)	1 650.8	100	(X)	145.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	235.8	14	64	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	64.3	4	79	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	42.9	3	90	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	912.9	55	53	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	103.1	6	85	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	281.9	17	33	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	0.1	(Z)	92	(S)	(S)	(X)
All other	(S)	(S)	(X)	9.8	1	66	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	3	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	49	(X)	(X)	(S)	(X)	(X)
	2431, Millwork			2434, Wood kitchen cabinets			2435, Hardwood veneer and plywood		
Total product shipments²	8 800.9	100	(X)	4 216.5	100	(X)	1 834.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	1 151.7	13	42	(S)	(S)	(X)	411.0	22	64
Retail stores and outlets	110.5	1	60	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	344.6	4	42	(S)	(S)	(X)	215.1	12	51
Other nonmanufacturing establishments	-	-	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	5 742.0	65	30	(S)	(S)	(X)	428.4	23	28
Retailers	405.1	5	24	(S)	(S)	(X)	108.1	6	47
Manufacturers	799.4	9	33	(S)	(S)	(X)	651.0	35	26
Federal, State, and local governments	0.5	(Z)	65	(S)	(S)	(X)	3.2	(Z)	85
All other	247.2	3	36	(S)	(S)	(X)	17.7	1	40
Resales ⁴	(X)	4	(X)	(X)	2	(X)	(X)	7	(X)
Adjustment ratio ⁵	56	(X)	(X)	(S)	(X)	(X)	32	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2436, Softwood veneer and plywood			2439, Structural wood members, n.e.c.			2441, Nailed wood boxes and shook		
Total product shipments ²	4 383.0	100	(X)	1 887.6	100	(X)	347.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	513.8	12	47	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	8.8	(Z)	66	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	89.6	2	45	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	-	-	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	2 806.9	64	18	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	249.0	6	31	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	622.0	14	26	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	0.1	(Z)	66	(S)	(S)	(X)	(S)	(S)	(X)
All other	92.8	2	43	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	1	(X)	(X)	4	(X)	(X)	5	(X)
Adjustment ratio ⁵	44	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	2448, Wood pallets and skids			2449, Wood containers, n.e.c.			2451, Mobile homes		
Total product shipments ²	1 437.0	100	(X)	218.6	100	(X)	4 044.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	259.7	6	40
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	41.7	1	48
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	14.2	(Z)	92
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	722.5	18	27
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	2 902.7	72	20
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	33.8	1	38
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	31.7	1	46
All other	(S)	(S)	(X)	(S)	(S)	(X)	38.2	1	45
Resales ⁴	(X)	2	(X)	(X)	6	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	30	(X)	(X)
	2452, Prefabricated wood buildings			2491, Wood preserving			2493, Reconstituted wood products		
Total product shipments ²	2 334.3	100	(X)	2 151.9	100	(X)	2 896.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	317.3	11	88
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	35.2	1	88
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	287.4	10	83
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	1 091.1	38	38
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	243.8	8	42
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	871.2	30	59
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	2.8	(Z)	58
All other	(S)	(S)	(X)	(S)	(S)	(X)	47.8	2	68
Resales ⁴	(X)	2	(X)	(X)	1	(X)	(X)	2	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	57	(X)	(X)
	2499, Wood products, n.e.c.			25, Furniture and fixtures			2511, Wood household furniture		
Total product shipments ²	3 183.1	100	(X)	35 856.3	100	(X)	7 454.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	3 721.8	10	27	168.7	2	83
Retail stores and outlets	(S)	(S)	(X)	797.4	2	39	282.5	4	58
Other manufacturing establishments	(S)	(S)	(X)	824.9	2	38	34.9	(Z)	52
Other nonmanufacturing establishments	(S)	(S)	(X)	69.8	(Z)	53	36.8	(Z)	71
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	6 468.9	18	10	924.7	12	29
Retailers	(S)	(S)	(X)	17 707.2	49	9	5 585.5	75	16
Manufacturers	(S)	(S)	(X)	2 293.2	6	14	250.2	3	39
Federal, State, and local governments	(S)	(S)	(X)	923.3	3	20	61.4	1	41
All other	(S)	(S)	(X)	3 049.9	9	21	109.5	1	38
Resales ⁴	(X)	4	(X)	(X)	4	(X)	(X)	5	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	52	(X)	(X)	51	(X)	(X)
	2512, Upholstered household furniture			2514, Metal household furniture			2515, Mattresses and bedsprings		
Total product shipments ²	4 911.8	100	(X)	1 947.3	100	(X)	2 693.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	121.9	2	63	48.0	2	57	(S)	(S)	(X)
Retail stores and outlets	182.7	4	58	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	3.1	(Z)	47	42.7	2	52	(S)	(S)	(X)
Other nonmanufacturing establishments	-	-	(X)	31.2	2	82	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	533.0	11	34	82.8	4	41	(S)	(S)	(X)
Retailers	3 684.9	75	12	1 697.5	87	37	(S)	(S)	(X)
Manufacturers	334.4	7	23	35.3	2	63	(S)	(S)	(X)
Federal, State, and local governments	23.5	(Z)	44	-	-	(X)	(S)	(S)	(X)
All other	28.3	1	30	9.8	1	74	(S)	(S)	(X)
Resales ⁴	(X)	1	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵	28	(X)	(X)	50	(X)	(X)	(S)	(X)	(X)

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2517, Wood television and radio cabinets			2519, Household furniture, n.e.c.			2521, Wood office furniture		
Total product shipments²	371.8	100	(X)	426.4	100	(X)	2 016.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	23.7	6	80	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	—	—	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	24.8	7	81	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	—	—	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	11.4	3	74	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	100.1	27	73	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	202.0	54	51	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	1.4	(Z)	74	(S)	(S)	(X)	(S)	(S)	(X)
All other	8.4	2	74	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	(Z)	(X)	(X)	1	(X)	(X)	5	(X)
Adjustment ratio ⁵	55	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	2522, Office furniture, except wood			2531, Public building and related furniture			2541, Wood partitions and fixtures		
Total product shipments²	5 243.0	100	(X)	2 029.8	100	(X)	2 778.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	1 563.9	30	47	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	3.7	(Z)	72	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	59.3	1	61	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	0.4	(Z)	74	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	1 104.7	21	21	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	943.7	18	24	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	389.7	7	38	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	265.0	5	30	(S)	(S)	(X)	(S)	(S)	(X)
All other	912.5	17	39	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	3	(X)
Adjustment ratio ⁵	40	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	2542, Partitions and fixtures, except wood			2591, Drapery hardware and blinds and shades			2599, Furniture and fixtures, n.e.c.		
Total product shipments²	2 434.0	100	(X)	1 671.9	100	(X)	1 878.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	987.0	41	51	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	0.4	(Z)	85	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	1.6	(Z)	64	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	—	—	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	474.7	20	28	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	567.3	23	27	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	247.9	10	28	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	94.6	4	37	(S)	(S)	(X)	(S)	(S)	(X)
All other	60.5	2	34	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	5	(X)	(X)	9	(X)	(X)	6	(X)
Adjustment ratio ⁵	27	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	26, Paper and allied products			2611, Pulp mills			2621, Paper mills		
Total product shipments²	105 399.0	100	(X)	5 356.7	100	(X)	27 121.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	2 919.6	3	31	—	—	(X)	660.0	2	28
Retail stores and outlets	505.7	(Z)	36	7.5	(Z)	64	(Z)	(Z)	57
Other manufacturing establishments	14 033.2	13	12	1 786.4	33	24	4 576.1	17	32
Other nonmanufacturing establishments	443.8	(Z)	63	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	22 509.6	21	11	254.1	5	37	8 912.3	33	20
Retailers	10 268.4	10	16	—	—	(X)	246.7	1	34
Manufacturers	45 031.0	43	6	2 014.2	38	24	11 350.1	42	13
Federal, State, and local governments	722.6	1	16	—	—	(X)	156.2	1	43
All other	8 965.1	9	16	1 294.4	24	33	1 220.2	4	40
Resales ⁴	(X)	2	(X)	(X)	(D)	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	38	(X)	(X)	41	(X)	(X)	33	(X)	(X)
	2631, Paperboard mills			2652, Setup paperboard boxes			2653, Corrugated and solid fiber boxes		
Total product shipments²	13 697.1	100	(X)	517.9	100	(X)	15 602.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	60.7	(Z)	65	(S)	(S)	(X)	254.3	2	73
Retail stores and outlets	—	—	(X)	(S)	(S)	(X)	132.5	1	94
Other manufacturing establishments	4 598.0	34	14	(S)	(S)	(X)	1 684.4	11	29
Other nonmanufacturing establishments	—	—	(X)	(S)	(S)	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	1 061.7	8	33	(S)	(S)	(X)	1 098.8	7	21
Retailers	123.8	1	46	(S)	(S)	(X)	1 237.7	8	47
Manufacturers	7 354.6	54	13	(S)	(S)	(X)	10 641.9	68	12
Federal, State, and local governments	45.4	(Z)	76	(S)	(S)	(X)	48.7	(Z)	58
All other	452.9	3	24	(S)	(S)	(X)	503.9	3	34
Resales ⁴	(X)	(D)	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	42	(X)	(X)	(S)	(X)	(X)	46	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2655, Fiber cans, drums, and similar products			2656, Sanitary food containers			2657, Folding paperboard boxes		
Total product shipments²	1 493.9	100	(X)	1 959.6	100	(X)	5 522.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	22.8	1	83	11.9	(Z)	83
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	22.1	1	34	433.1	8	34
Other nonmanufacturing establishments	(S)	(S)	(X)	14.1	1	55	157.2	3	84
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	705.5	36	34	806.9	15	40
Retailers	(S)	(S)	(X)	801.1	41	37	491.0	9	37
Manufacturers	(S)	(S)	(X)	382.9	20	29	3 573.8	65	29
Federal, State, and local governments	(S)	(S)	(X)	9.2	(Z)	39	15.5	(Z)	53
All other	(S)	(S)	(X)	1.9	(Z)	66	32.7	1	66
Resales ⁴	(X)	1	(X)	(X)	4	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	25	(X)	(X)	46	(X)	(X)
	2671, Paper coated and laminated, packaging			2672, Paper coated and laminated, n.e.c.			2673, Bags plastics, laminated, and coated		
Total product shipments²	2 460.1	100	(X)	5 497.7	100	(X)	3 936.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	1 125.3	20	53	10.9	(Z)	55
Retail stores and outlets	-	-	(X)	-	-	(X)	164.1	4	34
Other manufacturing establishments	(D)	(D)	(X)	360.6	7	29	41.9	1	28
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	0.7	(Z)	75
Shipments to all other customers:									
Wholesalers ³	466.2	19	30	1 041.8	19	30	1 116.1	28	19
Retailers	59.2	2	28	132.4	2	28	915.1	23	23
Manufacturers	1 014.1	41	15	2 266.2	41	15	1 636.9	42	18
Federal, State, and local governments	15.5	1	36	34.7	1	36	27.7	1	26
All other	(D)	(D)	(X)	536.8	10	54	23.0	1	38
Resales ⁴	(X)	1	(X)	(X)	6	(X)	(X)	4	(X)
Adjustment ratio ⁵	41	(X)	(X)	35	(X)	(X)	32	(X)	(X)
	2674, Bags uncoated paper and multiwall			2675, Die-cut paper and board			2676, Sanitary paper products		
Total product shipments²	2 360.6	100	(X)	1 701.1	100	(X)	11 171.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	6.5	(Z)	55	37.2	2	64	10.1	(Z)	57
Retail stores and outlets	98.4	4	34	-	-	(X)	-	-	(X)
Other manufacturing establishments	25.1	1	28	21.5	1	75	1.0	(Z)	50
Other nonmanufacturing establishments	0.4	(Z)	75	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	669.3	28	19	382.4	22	40	4 538.8	41	29
Retailers	548.8	23	23	527.2	31	35	3 957.7	35	37
Manufacturers	981.6	42	18	439.8	26	40	63.0	1	43
Federal, State, and local governments	16.6	1	26	97.9	6	62	154.1	1	33
All other	13.8	1	38	195.1	11	58	2 447.1	22	51
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	1	(X)
Adjustment ratio ⁵	44	(X)	(X)	58	(X)	(X)	32	(X)	(X)
	2677, Envelopes			2678, Stationery products			2679, Converted paper products, n.e.c.		
Total product shipments²	2 499.5	100	(X)	1 115.2	100	(X)	3 385.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	152.9	6	82	8.7	1	34	(D)	(D)	(X)
Retail stores and outlets	-	-	(X)	103.1	9	90	-	-	(X)
Other manufacturing establishments	60.3	2	48	36.9	3	72	(D)	(D)	(X)
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	3.1	(Z)	1
Shipments to all other customers:									
Wholesalers ³	693.8	28	27	154.4	14	29	557.2	16	1
Retailers	332.7	13	28	516.0	46	23	379.1	11	1
Manufacturers	384.5	15	44	232.9	21	28	1 078.3	32	10
Federal, State, and local governments	74.9	3	33	21.4	2	35	4.8	(Z)	44
All other	800.3	32	35	41.8	4	29	(D)	(D)	(X)
Resales ⁴	(X)	4	(X)	(X)	8	(X)	(X)	7	(X)
Adjustment ratio ⁵	55	(X)	(X)	16	(X)	(X)	-13	(X)	(X)
	27, Printing and publishing			2711, Newspapers			2721, Periodicals		
Total product shipments²	131 197.5	100	(X)	30 494.7	100	(X)	16 492.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	1 541.6	1	23	417.5	1	35	(S)	(S)	(X)
Retail stores and outlets	362.2	(Z)	31	42.4	(Z)	57	(S)	(S)	(X)
Other manufacturing establishments	1 102.4	1	40	3.1	(Z)	60	(S)	(S)	(X)
Other nonmanufacturing establishments	1 143.7	1	36	132.4	(Z)	71	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	19 912.9	15	11	1 137.5	4	22	(S)	(S)	(X)
Retailers	26 178.1	20	13	5 909.6	19	20	(S)	(S)	(X)
Manufacturers	21 912.8	17	10	1 929.5	6	18	(S)	(S)	(X)
Federal, State, and local governments	2 336.8	2	23	10.9	(Z)	41	(S)	(S)	(X)
All other	56 707.0	43	9	20 911.7	69	18	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	(Z)	(X)	(X)	1	(X)
Adjustment ratio ⁵	57	(X)	(X)	36	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2731, Book publishing			2732, Book printing			2741, Miscellaneous publishing		
Total product shipments²	11 629.9	100	(X)	3 240.9	100	(X)	8 176.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	30.2	(Z)	47	4.3	(Z)	58	(S)	(S)	(X)
Retail stores and outlets	91.6	1	78	4.2	(Z)	68	(S)	(S)	(X)
Other manufacturing establishments	-	-	(X)	30.2	1	45	(S)	(S)	(X)
Other nonmanufacturing establishments	46.6	(Z)	73	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	2 971.4	26	26	987.5	30	22	(S)	(S)	(X)
Retailers	1 554.6	13	26	967.1	30	42	(S)	(S)	(X)
Manufacturers	901.1	8	53	792.6	24	27	(S)	(S)	(X)
Federal, State, and local governments	335.8	3	46	91.9	3	33	(S)	(S)	(X)
All other	5 698.7	49	22	363.3	11	38	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	1	(X)	(X)	1	(X)
Adjustment ratio ⁵	54	(X)	(X)	34	(X)	(X)	(S)	(X)	(X)
	2752, Commercial printing, lithographic			2754, Commercial printing, gravure			2759, Commercial printing, n.e.c.		
Total product shipments²	32 143.1	100	(X)	2 740.2	100	(X)	9 112.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	56.2	2	47	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	479.9	18	37	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	1 417.3	52	63	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	652.5	24	29	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	0.7	(Z)	49	(S)	(S)	(X)
All other	(S)	(S)	(X)	133.6	5	57	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	(Z)	(X)	(X)	3	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	46	(X)	(X)	(S)	(X)	(X)
	2761, Manifold business forms			2771, Greeting cards			2782, Blankbooks and looseleaf binders		
Total product shipments²	6 787.7	100	(X)	2 034.6	100	(X)	2 670.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	262.1	4	50	0.8	(Z)	69	50.5	2	73
Retail stores and outlets	7.6	(Z)	68	47.9	2	61	-	-	(X)
Other manufacturing establishments	18.3	(Z)	58	-	-	(X)	19.2	1	53
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	1 040.0	15	23	59.4	3	41	2 096.4	79	54
Retailers	1 031.7	15	30	1 751.2	86	53	160.6	6	44
Manufacturers	431.0	6	23	69.5	3	52	96.2	4	47
Federal, State, and local governments	139.0	2	23	3.3	(Z)	50	27.7	1	73
All other	3 857.9	57	35	102.5	5	42	219.8	8	39
Resales ⁴	(X)	5	(X)	(X)	17	(X)	(X)	4	(X)
Adjustment ratio ⁵	46	(X)	(X)	48	(X)	(X)	53	(X)	(X)
	2789, Bookbinding and related work			2791, Typesetting			2796, Platemaking services		
Total product shipments²	1 149.5	100	(X)	2 034.7	100	(X)	2 490.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	1	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	28, Chemicals and allied products			2812, Alkalies and chlorine			2813, Industrial gases		
Total product shipments²	214 617.8	100	(X)	2 033.5	100	(X)	2 631.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	23 997.5	11	11	12.7	1	42	196.9	7	35
Retail stores and outlets	3 468.8	2	22	-	-	(X)	(D)	(D)	(X)
Other manufacturing establishments	23 608.6	11	8	33.5	2	29	185.3	7	14
Other nonmanufacturing establishments	852.4	(Z)	16	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	39 434.7	18	5	511.9	25	30	396.0	15	11
Retailers	22 798.4	11	9	-	-	(X)	(D)	(D)	(X)
Manufacturers	84 729.1	39	4	1 454.9	72	30	1 603.8	61	12
Federal, State, and local governments	2 806.5	1	8	16.9	1	66	46.7	2	18
All other	12 921.8	6	7	3.5	(Z)	30	184.8	7	12
Resales ⁴	(X)	5	(X)	(X)	(D)	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	22	(X)	(X)	19	(X)	(X)	5	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
2816, Inorganic pigments									
Total product shipments²	2 425.5	100	(X)	10 266.1	100	(X)	27 812.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	454.7	4	31	2 786.3	10	66
Retail stores and outlets	—	—	(X)	1.0	(Z)	60	—	—	(X)
Other manufacturing establishments	358.7	15	31	2 071.4	20	20	3 817.9	14	16
Other nonmanufacturing establishments	(D)	(D)	(X)	6.5	(Z)	58	99.1	(Z)	40
Shipments to all other customers:									
Wholesalers ³	173.7	7	18	883.1	9	32	594.1	2	20
Retailers	11.8	(Z)	79	48.2	(Z)	52	59.7	(Z)	34
Manufacturers	1 781.6	73	16	5 928.6	58	13	19 273.4	69	10
Federal, State, and local governments	(D)	(D)	(X)	90.7	1	29	3.2	(Z)	48
All other	94.7	4	30	781.8	8	30	1 178.6	4	20
Resales ⁴	(X)	4	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	9	(X)	(X)	37	(X)	(X)	21	(X)	(X)
2819, Industrial inorganic chemicals, n.e.c.									
2821, Plastics materials and resins									
2822, Synthetic rubber									
Total product shipments²	3 467.0	100	(X)	1 220.0	100	(X)	8 875.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	308.0	9	64	—	—	(X)	(D)	(D)	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	702.9	20	33	57.4	5	30	330.2	4	8
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	9.7	(Z)	64	—	—	(X)	118.6	1	9
Retailers	—	—	(X)	—	—	(X)	(D)	(D)	(X)
Manufacturers	2 281.0	66	26	1 162.6	95	17	8 020.1	90	8
Federal, State, and local governments	84.5	2	64	—	—	(X)	—	—	(X)
All other	80.9	2	58	—	—	(X)	(D)	(D)	(X)
Resales ⁴	(X)	3	(X)	(X)	(Z)	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	41	(X)	(X)	9	(X)	(X)	3	(X)	(X)
2823, Cellulosic manmade fibers									
2824, Organic fibers, noncellulosic									
2833, Medicinals and botanicals									
Total product shipments²	4 224.4	100	(X)	26 610.3	100	(X)	2 683.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	153.3	4	51	4 446.0	17	1	(S)	(S)	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	(S)	(S)	(X)
Other manufacturing establishments	2 121.2	50	43	717.5	3	1	(S)	(S)	(X)
Other nonmanufacturing establishments	14.2	(Z)	52	(D)	(D)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	561.0	13	23	12 649.2	48	1	(S)	(S)	(X)
Retailers	36.9	1	49	4 576.2	17	1	(S)	(S)	(X)
Manufacturers	662.7	16	23	1 462.2	5	1	(S)	(S)	(X)
Federal, State, and local governments	12.2	(Z)	44	781.2	3	1	(S)	(S)	(X)
All other	662.9	16	40	(D)	(D)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	3	(X)	(X)	13	(X)	(X)	5	(X)
Adjustment ratio ⁵	27	(X)	(X)	—4	(X)	(X)	(S)	(X)	(X)
2834, Pharmaceutical preparations									
2835, Diagnostic substances									
2836, Biological products, except diagnostic									
Total product shipments²	1 765.2	100	(X)	9 527.1	100	(X)	5 112.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	217.1	12	69	714.9	8	30	819.9	16	57
Retail stores and outlets	—	—	(X)	11.5	(Z)	42	3.1	(Z)	75
Other manufacturing establishments	15.5	1	84	7.2	(Z)	22	4.9	(Z)	59
Other nonmanufacturing establishments	2.3	(Z)	1	—	—	(X)	0.1	(Z)	75
Shipments to all other customers:									
Wholesalers ³	593.6	34	37	5 205.2	55	28	1 925.3	38	50
Retailers	166.5	9	49	2 556.1	27	33	1 478.5	29	33
Manufacturers	62.3	4	84	646.2	7	20	528.0	10	67
Federal, State, and local governments	133.1	8	49	185.2	2	26	54.2	1	27
All other	574.7	33	34	200.8	2	24	298.5	6	44
Resales ⁴	(X)	5	(X)	(X)	8	(X)	(X)	4	(X)
Adjustment ratio ⁵	58	(X)	(X)	18	(X)	(X)	57	(X)	(X)
2841, Soap and other detergents									
2842, Polishes and sanitation goods									
2843, Surface active agents									
Total product shipments²	2 884.5	100	(X)	14 871.3	100	(X)	12 078.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	474.5	16	60	1 872.8	13	28	1 200.6	10	27
Retail stores and outlets	2.0	(Z)	62	1 305.0	9	34	1 404.9	12	38
Other manufacturing establishments	95.9	3	27	31.6	(Z)	26	671.1	6	34
Other nonmanufacturing establishments	—	—	(X)	209.3	1	52	21.0	(Z)	70
Shipments to all other customers:									
Wholesalers ³	481.3	17	36	2 621.5	18	18	1 283.1	11	26
Retailers	—	—	(X)	7 745.6	52	18	2 552.9	21	35
Manufacturers	1 731.3	60	24	556.8	4	27	4 439.4	37	26
Federal, State, and local governments	15.0	1	62	191.2	1	26	61.4	1	30
All other	84.3	3	27	337.5	2	40	443.9	4	37
Resales ⁴	(X)	4	(X)	(X)	5	(X)	(X)	6	(X)
Adjustment ratio ⁵	38	(X)	(X)	30	(X)	(X)	46	(X)	(X)
2844, Toilet preparations									
2851, Paints and allied products									

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2861, Gum and wood chemicals			2865, Cyclic crudes and intermediates			2869, Industrial organic chemicals, n.e.c.		
Total product shipments²	551.6	100	(X)	11 138.7	100	(X)	35 451.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	52.0	9	91	808.9	7	45	6 296.5	18	27
Retail stores and outlets	—	—	(X)	29.1	(Z)	1	291.8	1	1
Other manufacturing establishments	84.3	15	41	2 244.3	20	25	7 649.2	22	15
Other nonmanufacturing establishments	4.4	1	38	3.3	(Z)	62	183.4	1	32
Shipments to all other customers:									
Wholesalers ³	253.1	46	39	420.7	4	40	3 388.6	10	13
Retailers	—	—	(X)	55.2	(Z)	59	595.4	2	26
Manufacturers	92.9	17	26	7 267.1	65	18	15 491.9	44	11
Federal, State, and local governments	—	—	(X)	16.3	(Z)	62	334.6	1	25
All other	64.9	12	28	293.9	3	29	1 220.2	3	17
Resales ⁴	(X)	3	(X)	(X)	2	(X)	(X)	4	(X)
Adjustment ratio ⁵	14	(X)	(X)	39	(X)	(X)	7	(X)	(X)
	2873, Nitrogenous fertilizers			2874, Phosphatic fertilizers			2875, Fertilizers, mixing only		
Total product shipments²	2 759.1	100	(X)	3 609.0	100	(X)	1 370.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	328.1	12	32	1 224.2	34	25	76.5	6	43
Retail stores and outlets	47.9	2	52	107.7	3	29	237.2	17	40
Other manufacturing establishments	155.5	6	25	398.7	11	28	43.2	3	91
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	794.2	29	25	611.5	17	27	638.4	47	42
Retailers	725.4	26	30	472.1	13	23	277.9	20	31
Manufacturers	535.0	19	21	493.0	14	41	69.0	5	61
Federal, State, and local governments	0.3	(Z)	87	1.6	(Z)	46	1.8	(Z)	38
All other	172.8	6	48	300.2	8	28	26.6	2	44
Resales ⁴	(X)	2	(X)	(X)	1	(X)	(X)	28	(X)
Adjustment ratio ⁵	29	(X)	(X)	21	(X)	(X)	41	(X)	(X)
	2879, Agricultural chemicals, n.e.c.			2891, Adhesives and sealants			2892, Explosives		
Total product shipments²	5 579.6	100	(X)	4 550.4	100	(X)	742.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	309.7	7	52	(D)	(D)	(X)
Retail stores and outlets	(D)	(D)	(X)	0.2	(Z)	71	—	—	(X)
Other manufacturing establishments	709.7	13	13	153.3	3	27	17.0	2	15
Other nonmanufacturing establishments	(D)	(D)	(X)	30.2	1	59	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	2 799.2	50	8	671.9	15	30	248.0	33	20
Retailers	436.8	8	13	211.8	5	39	(D)	(D)	(X)
Manufacturers	972.1	17	14	2 645.6	58	35	(D)	(D)	(X)
Federal, State, and local governments	17.6	(Z)	12	3.6	(Z)	66	406.6	55	1
All other	389.0	7	13	523.9	12	38	54.8	7	1
Resales ⁴	(X)	3	(X)	(X)	6	(X)	(X)	3	(X)
Adjustment ratio ⁵	5	(X)	(X)	50	(X)	(X)	—4	(X)	(X)
	2893, Printing ink			2895, Carbon black			2899, Chemical preparations, n.e.c.		
Total product shipments²	2 359.1	100	(X)	569.6	100	(X)	7 447.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	—	—	(X)	560.3	8	40
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	10.7	(Z)	59
Other manufacturing establishments	(S)	(S)	(X)	(D)	(D)	(X)	886.9	12	37
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	43.9	1	46
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	—	—	(X)	668.3	9	22
Retailers	(S)	(S)	(X)	—	—	(X)	541.0	7	26
Manufacturers	(S)	(S)	(X)	(D)	(D)	(X)	2 890.6	39	13
Federal, State, and local governments	(S)	(S)	(X)	—	—	(X)	109.4	1	40
All other	(S)	(S)	(X)	(D)	(D)	(X)	1 736.4	23	26
Resales ⁴	(X)	2	(X)	(X)	(Z)	(X)	(X)	4	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	2	(X)	(X)	34	(X)	(X)
	29, Petroleum and coal products			2911, Petroleum refining			2951, Asphalt paving mixtures and blocks		
Total product shipments²	125 811.1	100	(X)	114 278.3	100	(X)	4 087.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	67 116.5	53	10	66 360.9	58	11	(S)	(S)	(X)
Retail stores and outlets	3 777.7	3	14	3 773.3	3	14	(S)	(S)	(X)
Other manufacturing establishments	6 242.1	5	11	5 912.5	5	12	(S)	(S)	(X)
Other nonmanufacturing establishments	226.4	(Z)	23	128.9	(Z)	23	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	28 182.0	22	8	23 379.8	20	9	(S)	(S)	(X)
Retailers	5 754.1	5	9	5 244.8	5	10	(S)	(S)	(X)
Manufacturers	5 581.9	4	7	4 275.1	4	8	(S)	(S)	(X)
Federal, State, and local governments	3 332.5	3	14	1 925.6	2	10	(S)	(S)	(X)
All other	5 598.0	4	15	3 277.4	3	21	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	17	(X)	(X)	14	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	2952, Asphalt felts and coatings			2992, Lubricating oils and greases			2999, Petroleum and coal products, n.e.c.		
Total product shipments²	3 175.7	100	(X)	3 622.2	100	(X)	647.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	122.8	4	53	578.5	16	33	3.6	1	26
Retail stores and outlets	-	-	(X)	4.1	(Z)	42	-	-	(X)
Other manufacturing establishments	100.1	3	31	126.8	4	38	95.7	15	19
Other nonmanufacturing establishments	-	-	(X)	54.8	2	60	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	1 941.4	61	27	1 863.9	51	25	29.2	5	27
Retailers	275.7	9	35	161.4	4	32	7.7	1	30
Manufacturers	254.4	8	46	665.6	18	26	321.3	50	18
Federal, State, and local governments	23.3	1	61	37.6	1	33	4.1	1	26
All other	458.1	14	35	129.5	4	29	186.3	29	23
Resales ⁴	(X)	5	(X)	(X)	5	(X)	(X)	4	(X)
Adjustment ratio ⁵	43	(X)	(X)	37	(X)	(X)	22	(X)	(X)
	30, Rubber and miscellaneous plastics products			3011, Tires and inner tubes			3021, Rubber and plastics footwear		
Total product shipments²	85 403.8	100	(X)	10 032.7	100	(X)	519.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	3 887.5	5	26	(S)	(S)	(X)	1.6	(Z)	83
Retail stores and outlets	1 053.5	1	48	(S)	(S)	(X)	28.1	5	69
Other manufacturing establishments	5 414.8	6	15	(S)	(S)	(X)	-	-	(X)
Other nonmanufacturing establishments	147.5	(Z)	30	(S)	(S)	(X)	27.1	5	80
Shipments to all other customers:									
Wholesalers ³	18 748.6	22	9	(S)	(S)	(X)	104.8	20	37
Retailers	8 739.2	10	16	(S)	(S)	(X)	299.4	58	35
Manufacturers	42 122.1	49	8	(S)	(S)	(X)	21.2	4	52
Federal, State, and local governments	757.0	1	17	(S)	(S)	(X)	4.5	1	50
All other	4 533.6	5	15	(S)	(S)	(X)	32.8	6	57
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	5	(X)
Adjustment ratio ⁵	54	(X)	(X)	(S)	(X)	(X)	34	(X)	(X)
	3052, Rubber and plastics hose and belting			3053, Gaskets, packing, and sealing devices			3061, Mechanical rubber goods		
Total product shipments²	2 213.6	100	(X)	2 309.4	100	(X)	3 553.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(Z)	(Z)	(X)	63.7	3	23	16.5	(Z)	54
Retail stores and outlets	-	-	(X)	10.4	(Z)	79	-	-	(X)
Other manufacturing establishments	12.8	1	63	17.8	1	42	340.0	10	35
Other nonmanufacturing establishments	4.9	(Z)	85	5.2	(Z)	37	11.8	(Z)	49
Shipments to all other customers:									
Wholesalers ³	1 629.4	74	42	362.6	16	30	660.7	19	19
Retailers	35.4	2	53	21.4	1	80	196.0	6	46
Manufacturers	340.4	15	40	1 462.0	63	66	1 983.3	56	15
Federal, State, and local governments	56.1	3	45	75.2	3	59	66.5	2	49
All other	134.6	6	88	291.0	13	49	279.2	8	26
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵	48	(X)	(X)	13	(X)	(X)	49	(X)	(X)
	3069, Fabricated rubber products, n.e.c.			3081, Unsupported plastics film and sheet			3082, Unsupported plastics profile shapes		
Total product shipments²	5 235.1	100	(X)	8 766.6	100	(X)	2 369.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	29.6	1	54	284.0	3	25	76.8	3	25
Retail stores and outlets	-	-	(X)	44.1	1	82	11.9	1	82
Other manufacturing establishments	491.9	9	35	646.1	7	16	174.7	7	16
Other nonmanufacturing establishments	17.8	(Z)	49	11.5	(Z)	42	3.1	(Z)	42
Shipments to all other customers:									
Wholesalers ³	947.5	18	19	1 810.0	21	11	489.3	21	11
Retailers	289.0	6	46	718.7	8	13	194.3	8	13
Manufacturers	2 944.3	56	15	4 734.4	54	9	1 279.8	54	9
Federal, State, and local governments	95.2	2	49	54.0	1	18	14.6	1	18
All other	419.8	8	26	463.8	5	19	125.4	5	19
Resales ⁴	(X)	5	(X)	(X)	1	(X)	(X)	3	(X)
Adjustment ratio ⁵	45	(X)	(X)	59	(X)	(X)	55	(X)	(X)
	3083, Laminated plastics plate, sheet, and profile shapes			3084, Plastics pipe			3085, Plastics bottles		
Total product shipments²	2 093.9	100	(X)	2 384.4	100	(X)	2 849.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	67.8	3	25	77.2	3	25	92.3	3	25
Retail stores and outlets	10.5	1	82	12.0	1	82	14.3	1	82
Other manufacturing establishments	154.2	7	16	175.7	7	16	210.0	7	16
Other nonmanufacturing establishments	2.7	(Z)	42	3.1	(Z)	42	3.7	(Z)	42
Shipments to all other customers:									
Wholesalers ³	432.0	21	11	492.3	21	11	588.3	21	11
Retailers	171.5	8	13	195.5	8	13	233.6	8	13
Manufacturers	1 131.5	54	9	1 287.7	54	9	1 538.9	54	9
Federal, State, and local governments	12.9	1	18	14.7	1	18	17.5	1	18
All other	110.7	5	19	126.1	5	19	150.8	5	19
Resales ⁴	(X)	2	(X)	(X)	1	(X)	(X)	1	(X)
Adjustment ratio ⁵	57	(X)	(X)	57	(X)	(X)	50	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
3086, Plastics foam products			3087, Custom compounding of purchased plastic resins			3088, Plastics plumbing fixtures			
Total product shipments²	7 026.3	100	(X)	2 370.4	100	(X)	751.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	227.6	3	25	76.8	3	25	24.3	3	25
Retail stores and outlets	35.4	1	82	11.9	1	82	3.8	1	82
Other manufacturing establishments	517.9	7	16	174.7	7	16	55.4	7	16
Other nonmanufacturing establishments	9.2	(Z)	42	3.1	(Z)	42	1.0	(Z)	42
Shipments to all other customers:									
Wholesalers ³	1 450.7	21	11	489.4	21	11	155.1	21	11
Retailers	576.0	8	13	194.3	8	13	61.6	8	13
Manufacturers	3 794.5	54	9	1 280.1	54	9	405.7	54	9
Federal, State, and local governments	43.3	1	18	14.6	1	18	4.6	1	18
All other	371.7	5	19	125.4	5	19	39.7	5	19
Resales ⁴	(X)	1	(X)	(X)	1	(X)	(X)	1	(X)
Adjustment ratio ⁵	55	(X)	(X)	48	(X)	(X)	49	(X)	(X)
3089, Plastics products, n.e.c.			31, Leather and leather products			3111, Leather tanning and finishing			
Total product shipments²	32 927.4	100	(X)	8 633.8	100	(X)	2 212.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	1 065.9	3	25	755.6	9	27	0.1	(Z)	74
Retail stores and outlets	165.6	1	82	686.1	8	28	—	—	(X)
Other manufacturing establishments	2 425.4	7	16	718.2	8	28	558.3	25	53
Other nonmanufacturing establishments	43.2	(Z)	42	3.4	(Z)	80	3.4	(Z)	80
Shipments to all other customers:									
Wholesalers ³	6 794.5	21	11	1 059.9	12	23	207.0	9	72
Retailers	2 697.8	8	13	3 515.1	41	14	10.1	(Z)	65
Manufacturers	17 791.2	54	9	1 652.3	19	22	1 342.9	61	26
Federal, State, and local governments	202.7	1	18	87.5	1	44	0.2	(Z)	76
All other	1 741.1	5	19	155.6	2	45	90.2	4	71
Resales ⁴	(X)	2	(X)	(X)	6	(X)	(X)	2	(X)
Adjustment ratio ⁵	56	(X)	(Z)	41	(X)	(X)	55	(X)	(X)
3131, Footwear cut stock			3142, House slippers			3143, Men's footwear, except athletic			
Total product shipments²	335.3	100	(X)	205.3	100	(X)	1 833.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	—	—	(X)	254.5	14	39
Retail stores and outlets	—	—	(X)	—	—	(X)	223.4	12	38
Other manufacturing establishments	108.6	32	71	—	—	(X)	19.3	1	66
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	22.5	7	94	11.3	5	49	149.3	8	63
Retailers	59.7	18	98	193.3	94	51	1 138.8	62	19
Manufacturers	144.5	43	59	—	—	(X)	—	—	(X)
Federal, State, and local governments	—	—	(X)	0.7	(Z)	53	39.8	2	85
All other	—	—	(X)	(Z)	(Z)	(X)	8.4	(Z)	45
Resales ⁴	(X)	1	(X)	(X)	5	(X)	(X)	9	(X)
Adjustment ratio ⁵	35	(X)	(X)	28	(X)	(X)	19	(X)	(X)
3144, Women's footwear, except athletic			3149, Footwear, except rubber, n.e.c.			3151, Leather gloves and mittens			
Total product shipments²	1 374.4	100	(X)	449.1	100	(X)	147.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	416.1	30	40	(S)	(S)	(X)	—	—	(X)
Retail stores and outlets	420.8	31	41	(S)	(S)	(X)	—	—	(X)
Other manufacturing establishments	32.0	2	91	(S)	(S)	(X)	—	—	(X)
Other nonmanufacturing establishments	—	—	(X)	(S)	(S)	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	195.8	14	39	(S)	(S)	(X)	75.6	51	99
Retailers	288.9	21	30	(S)	(S)	(X)	51.4	35	53
Manufacturers	(D)	(D)	(X)	(S)	(S)	(X)	—	—	(X)
Federal, State, and local governments	(D)	(D)	(X)	(S)	(S)	(X)	20.3	14	76
All other	(D)	(D)	(X)	(S)	(S)	(X)	—	—	(X)
Resales ⁴	(X)	1	(X)	(X)	6	(X)	(X)	12	(X)
Adjustment ratio ⁵	17	(X)	(X)	(S)	(X)	(X)	47	(X)	(X)
3161, Luggage			3171, Women's handbags and purses			3172, Personal leather goods, n.e.c.			
Total product shipments²	816.8	100	(X)	469.3	100	(X)	411.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	95.4	20	85	26.5	6	42
Retailers	(S)	(S)	43	355.5	76	40	320.9	78	53
Manufacturers	(S)	(S)	(X)	14.8	3	51	4.3	1	64
Federal, State, and local governments	(S)	(S)	(X)	3.6	1	66	9.5	2	60
All other	(S)	(S)	(X)	—	—	(X)	50.3	12	53
Resales ⁴	(X)	16	(X)	(X)	7	(X)	(X)	8	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	44	(X)	(X)	41	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3199, Leather goods, n.e.c.			32, Stone, clay, and glass products			3211, Flat glass		
Total product shipments²	379.0	100	(X)	58 022.4	100	(X)	3 509.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	2 584.8	4	21	51.5	1	37
Retail stores and outlets	(S)	(S)	(X)	119.7	(Z)	26	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	4 008.7	7	17	1 311.9	37	41
Other nonmanufacturing establishments	(S)	(S)	(X)	502.4	1	66	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	12 494.6	22	10	920.1	26	28
Retailers	(S)	(S)	(X)	4 951.8	9	16	281.3	8	54
Manufacturers	(S)	(S)	(X)	16 869.4	29	15	719.8	21	24
Federal, State, and local governments	(S)	(S)	(X)	817.9	1	19	14.0	(Z)	54
All other	(S)	(S)	(X)	15 673.1	27	10	210.4	6	52
Resales ⁴	(X)	8	(X)	(X)	5	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	51	(X)	(X)	51	(X)	(X)
	3221, Glass containers			3229, Pressed and blown glass, n.e.c.			3231, Products of purchased glass		
Total product shipments²	4 720.7	100	(X)	3 547.6	100	(X)	4 502.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	6.2	(Z)	50	3.1	(Z)	50	172.4	4	52
Retail stores and outlets	-	-	(X)	40.5	1	57	0.1	(Z)	80
Other manufacturing establishments	404.3	9	30	338.5	10	59	411.4	9	55
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	1 297.1	27	15	868.1	24	32	912.2	20	26
Retailers	7.9	(Z)	35	591.9	17	41	275.5	6	39
Manufacturers	3 002.6	64	28	1 344.6	38	38	2 011.9	45	23
Federal, State, and local governments	(Z)	(Z)	(X)	54.1	2	63	81.6	2	67
All other	2.6	(Z)	50	306.9	9	43	637.8	14	35
Resales ⁴	(X)	(D)	(X)	(X)	2	(X)	(X)	3	(X)
Adjustment ratio ⁵	25	(X)	(X)	43	(X)	(X)	56	(X)	(X)
	3241, Cement, hydraulic			3251, Brick and structural clay tile			3253, Ceramic wall and floor tile		
Total product shipments²	4 116.1	100	(X)	1 151.3	100	(X)	624.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	492.9	12	30	(S)	(S)	(X)	393.1	63	58
Retail stores and outlets	4.1	(Z)	85	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	176.7	4	44	(S)	(S)	(X)	-	-	(X)
Other nonmanufacturing establishments	42.8	1	41	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	518.7	13	27	(S)	(S)	(X)	231.5	37	52
Retailers	377.2	9	27	(S)	(S)	(X)	-	-	(X)
Manufacturers	1 840.0	45	18	(S)	(S)	(X)	-	-	(X)
Federal, State, and local governments	15.0	(Z)	34	(S)	(S)	(X)	-	-	(X)
All other	648.8	16	22	(S)	(S)	(X)	-	-	(X)
Resales ⁴	(X)	5	(X)	(X)	7	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	27	(X)	(X)	(S)	(X)	(X)	41	(X)	(X)
	3255, Clay refractories			3259, Structural clay products, n.e.c.			3261, Vitreous plumbing fixtures		
Total product shipments²	744.5	100	(X)	153.8	100	(X)	714.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	1.6	(Z)	78	-	-	(X)	8.1	1	54
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	17.8	2	56	125.4	82	94	4.5	1	85
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	34.4	5	56	14.2	9	76	691.9	97	28
Retailers	21.5	3	53	11.4	7	76	5.1	1	55
Manufacturers	528.7	71	44	-	-	(X)	1.0	(Z)	55
Federal, State, and local governments	6.7	1	70	-	-	(X)	-	-	(X)
All other	133.8	18	62	2.8	2	76	3.6	1	54
Resales ⁴	(X)	(D)	(X)	(X)	3	(X)	(X)	7	(X)
Adjustment ratio ⁵	49	(X)	(X)	56	(X)	(X)	30	(X)	(X)
	3262, Vitreous china table and kitchenware			3263, Semivitreous table and kitchenware			3264, Porcelain electrical supplies		
Total product shipments²	252.9	100	(X)	88.9	100	(X)	759.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	11.6	5	58	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	4.5	2	81	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	-	-	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	13.0	5	53	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	218.1	86	44	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	-	-	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	0.2	(Z)	67	(S)	(S)	(X)	(S)	(S)	(X)
All other	5.5	2	67	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	(D)	(X)	(X)	(D)	(X)	(X)	1	(X)
Adjustment ratio ⁵	35	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendices]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
3269, Pottery products, n.e.c.			3271, Concrete block and brick			3272, Concrete products, n.e.c.			
Total product shipments²	494.4	100	(X)	1 950.7	100	(X)	5 511.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	(S)	(S)	(X)	0.1	(Z)	54
Retail stores and outlets	22.5	5	69	(S)	(S)	(X)	0.4	(Z)	59
Other manufacturing establishments	2.5	1	54	(S)	(S)	(X)	68.0	1	56
Other nonmanufacturing establishments	-	-	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	122.7	25	70	(S)	(S)	(X)	1 057.3	19	37
Retailers	199.3	40	45	(S)	(S)	(X)	148.1	3	35
Manufacturers	130.1	26	42	(S)	(S)	(X)	2 761.8	50	79
Federal, State, and local governments	-	-	(X)	(S)	(S)	(X)	117.6	2	38
All other	17.3	4	90	(S)	(S)	(X)	1 358.4	25	19
Resales ⁴	(X)	5	(X)	(X)	21	(X)	(X)	5	(X)
Adjustment ratio ⁵	19	(X)	(X)	(S)	(X)	(X)	34	(X)	(X)
3273, Ready-mixed concrete			3274, Lime			3275, Gypsum products			
Total product shipments²	11 794.9	100	(X)	703.9	100	(X)	2 563.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	0.8	(Z)	92	133.6	5	55
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	0.1	(Z)	89
Other manufacturing establishments	(S)	(S)	(X)	14.3	2	63	38.4	2	55
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	55.2	8	39	705.9	28	38
Retailers	(S)	(S)	(X)	2.9	(Z)	56	1 144.1	45	56
Manufacturers	(S)	(S)	(X)	244.0	35	37	134.7	5	54
Federal, State, and local governments	(S)	(S)	(X)	85.0	12	71	135.8	5	52
All other	(S)	(S)	(X)	301.7	43	54	270.5	11	59
Resales ⁴	(X)	5	(X)	(X)	1	(X)	(X)	3	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	41	(X)	(X)	58	(X)	(X)
3281, Cut stone and stone products			3291, Abrasive products			3292, Asbestos products			
Total product shipments²	808.8	100	(X)	2 871.6	100	(X)	385.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	71.8	9	40	818.2	28	56	8.3	2	76
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	2.5	(Z)	53	566.4	20	46	159.5	41	76
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	413.4	51	52	962.0	33	45	24.1	6	72
Retailers	116.0	14	56	17.5	1	88	-	-	(X)
Manufacturers	33.9	4	25	483.3	17	32	135.2	35	56
Federal, State, and local governments	21.1	3	47	0.4	(Z)	38	2.3	1	76
All other	150.0	19	36	23.8	1	47	56.1	15	52
Resales ⁴	(X)	2	(X)	(X)	12	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	29	(X)	(X)	31	(X)	(X)	58	(X)	(X)
3295, Minerals, ground or treated			3296, Mineral wool			3297, Nonclay refractories			
Total product shipments²	1 344.8	100	(X)	3 137.6	100	(X)	972.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	129.6	10	44	(S)	(S)	(X)	4.3	(Z)	61
Retail stores and outlets	26.7	2	44	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	32.1	2	27	(S)	(S)	(X)	8.1	1	43
Other nonmanufacturing establishments	-	-	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	103.4	8	29	(S)	(S)	(X)	64.0	7	51
Retailers	42.3	3	83	(S)	(S)	(X)	-	-	(X)
Manufacturers	546.9	41	26	(S)	(S)	(X)	853.4	88	37
Federal, State, and local governments	4.0	(Z)	38	(S)	(S)	(X)	0.2	(Z)	43
All other	459.8	34	35	(S)	(S)	(X)	42.3	4	29
Resales ⁴	(X)	1	(X)	(X)	2	(X)	(X)	4	(X)
Adjustment ratio ⁵	20	(X)	(X)	(S)	(X)	(X)	37	(X)	(X)
3299, Nonmetallic mineral products, n.e.c.			33, Primary metal industries			3312, Blast furnaces and steel mills			
Total product shipments²	597.6	100	(X)	115 958.4	100	(X)	38 456.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	3 722.7	3	20	754.5	2	27
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	14 445.5	12	7	2 779.2	7	16
Other nonmanufacturing establishments	(S)	(S)	(X)	1 032.5	1	21	268.2	1	33
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	19 094.7	16	8	8 206.2	21	16
Retailers	(S)	(S)	(X)	1 789.5	2	24	878.7	2	45
Manufacturers	(S)	(S)	(X)	65 845.3	57	7	22 680.3	59	14
Federal, State, and local governments	(S)	(S)	(X)	1 195.1	1	14	64.4	(Z)	30
All other	(S)	(S)	(X)	8 833.1	8	10	2 825.1	7	24
Resales ⁴	(X)	3	(X)	(X)	1	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	27	(X)	(X)	26	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3313, Electrometallurgical products			3315, Steel wire and related products			3316, Cold finishing of steel shapes		
Total product shipments²	840.6	100	(X)	3 483.6	100	(X)	4 366.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	253.3	30	60	17.1	(Z)	44	45.8	1	45
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	11.5	1	53	222.1	6	43	237.4	5	13
Other nonmanufacturing establishments	185.4	22	72	3.3	(Z)	59	0.2	(Z)	61
Shipments to all other customers:									
Wholesalers ³	38.0	5	61	1 115.3	32	26	821.3	19	11
Retailers	—	—	(X)	115.5	3	57	—	—	(X)
Manufacturers	317.0	38	48	1 555.2	45	23	3 222.3	74	8
Federal, State, and local governments	—	—	(X)	26.0	1	70	(D)	(D)	(X)
All other	35.4	4	69	429.2	12	38	(D)	(D)	(X)
Resales ⁴	(X)	2	(X)	(X)	4	(X)	(X)	1	(X)
Adjustment ratio ⁵	52	(X)	(X)	55	(X)	(X)	4	(X)	(X)
	3317, Steel pipe and tubes			3321, Gray and ductile iron foundries			3322, Malleable iron foundries		
Total product shipments²	3 751.5	100	(X)	6 839.4	100	(X)	342.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	200.4	5	38	33.8	(Z)	34	—	—	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	340.3	9	32	2 150.4	31	21	(D)	(D)	(X)
Other nonmanufacturing establishments	22.7	1	38	62.0	1	38	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	1 400.8	37	14	867.4	13	17	(D)	(D)	(X)
Retailers	110.9	3	44	184.9	3	27	—	—	(X)
Manufacturers	1 307.4	35	16	2 549.7	37	15	(D)	(D)	(X)
Federal, State, and local governments	34.4	1	27	406.5	6	27	—	—	(X)
All other	334.6	9	34	584.7	9	20	—	—	(X)
Resales ⁴	(X)	1	(X)	(X)	4	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	15	(X)	(X)	14	(X)	(X)	-12	(X)	(X)
	3324, Steel investment foundries			3325, Steel foundries, n.e.c.			3331, Primary copper		
Total product shipments²	1 319.2	100	(X)	1 612.7	100	(X)	2 970.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	6.8	(Z)	67	—	—	(X)
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	(S)	(S)	(X)	91.9	6	65	34.4	1	35
Other nonmanufacturing establishments	(S)	(S)	(X)	6.3	(Z)	67	434.2	15	34
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	279.8	17	59	499.5	17	30
Retailers	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Manufacturers	(S)	(S)	(X)	795.8	49	23	1 634.3	55	34
Federal, State, and local governments	(S)	(S)	(X)	16.9	1	67	—	—	(X)
All other	(S)	(S)	(X)	415.2	26	48	368.1	12	31
Resales ⁴	(X)	1	(X)	(X)	1	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	45	(X)	(X)	18	(X)	(X)
	3334, Primary aluminum			3339, Primary nonferrous metals, n.e.c.			3341, Secondary nonferrous metals		
Total product shipments²	4 443.9	100	(X)	2 458.3	100	(X)	4 264.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	—	—	(X)	(D)	(D)	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	2 347.9	53	19	133.9	5	30	(D)	(D)	(X)
Other nonmanufacturing establishments	(Z)	(Z)	27	—	—	(X)	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	(D)	(D)	(X)	195.4	8	82	155.9	4	33
Retailers	—	—	(X)	7.5	(Z)	33	—	—	(X)
Manufacturers	2 017.7	45	12	2 029.3	83	64	2 337.3	55	1
Federal, State, and local governments	(D)	(D)	(X)	0.1	(Z)	33	21.7	1	79
All other	(D)	(D)	(X)	92.1	4	33	(D)	(D)	(X)
Resales ⁴	(X)	(D)	(X)	(X)	2	(X)	(X)	4	(X)
Adjustment ratio ⁵	7.3	(X)	(X)	12.8	(X)	(X)	(24.4)	(X)	(X)
	3351, Copper rolling and drawing			3353, Aluminum sheet, plate, and foil			3354, Aluminum extruded products		
Total product shipments²	4 667.9	100	(X)	9 051.9	100	(X)	3 781.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	192.1	4	56	145.7	2	50	45.6	1	55
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	490.0	10	36	1 327.4	15	48	316.6	8	36
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	0.6	(Z)	69
Shipments to all other customers:									
Wholesalers ³	870.5	19	52	339.6	4	43	549.6	15	39
Retailers	—	—	(X)	130.6	1	94	23.2	1	61
Manufacturers	2 466.0	53	20	6 631.2	73	37	2 793.6	74	25
Federal, State, and local governments	0.4	(Z)	69	5.4	(Z)	43	4.1	(Z)	59
All other	648.8	14	41	471.9	5	45	48.7	1	60
Resales ⁴	(X)	(D)	(X)	(X)	(Z)	(X)	(X)	1	(X)
Adjustment ratio ⁵	50	(X)	(X)	35	(X)	(X)	48	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3355, Aluminum rolling and drawing, n.e.c.			3356, Nonferrous rolling and drawing, n.e.c.			3357, Nonferrous wiredrawing and insulating		
Total product shipments²	1 099.4	100	(X)	2 810.5	100	(X)	10 341.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	10.9	(Z)	52	1 928.1	19	36
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	505.6	46	55	301.5	11	33	372.3	4	21
Other nonmanufacturing establishments	—	—	(X)	1.3	(Z)	54	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	2.2	(Z)	69	356.9	13	31	2 504.1	24	15
Retailers	—	—	(X)	14.4	1	41	258.7	3	28
Manufacturers	591.6	54	38	1 792.5	64	16	3 440.3	33	16
Federal, State, and local governments	—	—	(X)	211.3	8	37	(D)	(D)	(X)
All other	—	—	(X)	121.7	4	29	1 656.0	16	16
Resales ⁴	(X)	(Z)	(X)	(X)	1	(X)	(X)	2	(X)
Adjustment ratio ⁵	48	(X)	(X)	29	(X)	(X)	25	(X)	(X)
	3363, Aluminum die-castings			3364, Nonferrous die-castings, except aluminum			3365, Aluminum foundries		
Total product shipments²	2 328.0	100	(X)	1 034.1	100	(X)	1 786.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	35.2	2	82	1.2	(Z)	93	27.0	2	82
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	398.5	17	26	77.9	8	89	305.8	17	26
Other nonmanufacturing establishments	—	—	(X)	2.6	(Z)	79	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	177.5	8	25	188.2	18	73	136.2	8	25
Retailers	2.5	(Z)	31	24.5	2	79	1.9	(Z)	31
Manufacturers	1 641.5	71	21	674.8	65	38	1 259.7	71	21
Federal, State, and local governments	63.3	3	60	12.3	1	87	48.6	3	60
All other	9.6	(Z)	45	52.6	5	69	7.3	(Z)	45
Resales ⁴	(X)	1	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	27	(X)	(X)	43	(X)	(X)	33	(X)	(X)
	3366, Copper foundries			3369, Nonferrous foundries, n.e.c.			3398, Metal heat treating		
Total product shipments²	673.1	100	(X)	379.6	100	(X)	1 387.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	1	(X)	(X)	(D)	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	3399, Primary metal products, n.e.c.			34, Fabricated metal products			3411, Metal cans		
Total product shipments²	1 467.9	100	(X)	138 736.6	100	(X)	10 652.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	4 723.5	3	13	36.9	(Z)	40
Retail stores and outlets	—	—	(X)	331.8	(Z)	37	(Z)	(Z)	(X)
Other manufacturing establishments	219.8	15	48	18 653.0	13	15	1 015.9	10	18
Other nonmanufacturing establishments	—	—	(X)	842.6	1	33	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	109.2	7	50	28 886.3	21	6	162.6	2	44
Retailers	1.6	(Z)	95	6 774.9	5	10	15.5	(Z)	36
Manufacturers	1 097.8	75	22	53 692.7	39	4	9 397.8	88	14
Federal, State, and local governments	27.8	2	44	8 588.1	6	11	7.8	(Z)	39
All other	11.7	1	48	16 243.7	12	8	16.0	(Z)	38
Resales ⁴	(X)	3	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵	53	(X)	(X)	42	(X)	(X)	16	(X)	(X)
	3412, Metal barrels, drums, and pails			3421, Cutlery			3423, Hand and edge tools, n.e.c.		
Total product shipments²	1 003.7	100	(X)	1 119.3	100	(X)	3 152.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	536.6	48	40	260.0	8	75
Retail stores and outlets	(S)	(S)	(X)	72.8	7	83	—	—	(X)
Other manufacturing establishments	(S)	(S)	(X)	18.5	2	60	199.5	6	66
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	0.1	(Z)	66
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	229.8	21	27	1 383.5	44	25
Retailers	(S)	(S)	(X)	184.1	16	33	998.5	32	35
Manufacturers	(S)	(S)	(X)	42.8	4	35	219.8	7	31
Federal, State, and local governments	(S)	(S)	(X)	15.7	1	48	42.1	1	32
All other	(S)	(S)	(X)	18.9	2	58	49.0	2	54
Resales ⁴	(X)	(Z)	(X)	(X)	2	(X)	(X)	10	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	25	(X)	(X)	44	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendices]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3425, Saw blades and handsaws			3429, Hardware, n.e.c.			3431, Metal sanitary ware		
Total product shipments²	635.5	100	(X)	7 969.9	100	(X)	797.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	29.4	5	57	187.4	2	43	0.3	(Z)	71
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	14.6	2	50	2 995.3	38	58	10.1	1	73
Other nonmanufacturing establishments	-	-	(X)	4.7	(Z)	65	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	419.9	66	33	2 192.9	28	19	744.5	93	33
Retailers	128.6	20	39	561.1	7	27	3.0	(Z)	58
Manufacturers	37.8	6	51	1 749.6	22	23	6.1	1	68
Federal, State, and local governments	1.5	(Z)	47	185.7	2	55	21.7	3	93
All other	3.7	1	66	93.2	1	29	11.6	1	61
Resales ⁴	(X)	7	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	44	(X)	(X)	42	(X)	(X)	51	(X)	(X)
	3432, Plumbing fixture fittings and trim			3433, Heating equipment, except electric			3441, Fabricated structural metal		
Total product shipments²	2 205.0	100	(X)	2 138.5	100	(X)	7 746.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	416.4	19	30	73.1	3	86	(S)	(S)	(X)
Retail stores and outlets	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	7.8	(Z)	24	7.4	(Z)	58	(S)	(S)	(X)
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	1 211.4	55	15	1 185.4	55	26	(S)	(S)	(X)
Retailers	512.1	23	21	224.0	10	29	(S)	(S)	(X)
Manufacturers	36.8	2	15	400.0	19	26	(S)	(S)	(X)
Federal, State, and local governments	1.0	(Z)	28	58.5	3	61	(S)	(S)	(X)
All other	19.5	1	21	190.0	9	42	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	5	(X)	(X)	7	(X)
Adjustment ratio ⁵	12	(X)	(X)	20	(X)	(X)	(S)	(X)	(X)
	3442, Metal doors, sash, and trim			3443, Fabricated plate work (boiler shops)			3444, Sheet metal work		
Total product shipments²	5 986.0	100	(X)	6 202.6	100	(X)	9 009.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	18.8	(Z)	54	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	56.5	1	96	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	69.6	1	44	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	206.6	3	88	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	1 185.9	19	23	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	81.5	1	45	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	2 988.1	48	18	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	333.7	5	39	(S)	(S)	(X)
All other	(S)	(S)	(X)	1 261.9	20	29	(S)	(S)	(X)
Resales ⁴	(X)	6	(X)	(X)	3	(X)	(X)	5	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	57	(X)	(X)	(S)	(X)	(X)
	3446, Architectural metal work			3448, Prefabricated metal buildings			3449, Miscellaneous metal work		
Total product shipments²	2 193.4	100	(X)	2 825.0	100	(X)	2 998.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	43.9	2	79	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	49.4	2	39	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	1 080.0	38	31	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	162.9	6	44	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	176.3	6	35	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	234.3	8	37	(S)	(S)	(X)
All other	(S)	(S)	(X)	1 078.2	38	43	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	6	(X)	(X)	9	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	41	(X)	(X)	(S)	(X)	(X)
	3451, Screw machine products			3452, Bolts, nuts, rivets, and washers			3462, Iron and steel forgings		
Total product shipments²	2 763.3	100	(X)	4 793.1	100	(X)	2 903.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	108.7	2	70	32.8	1	73
Retail stores and outlets	(S)	(S)	(X)	6.0	(Z)	62	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	188.0	4	54	385.8	13	46
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(Z)	(Z)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	733.4	15	19	90.5	3	36
Retailers	(S)	(S)	(X)	70.2	1	85	42.4	1	60
Manufacturers	(S)	(S)	(X)	3 473.0	72	13	2 122.0	73	19
Federal, State, and local governments	(S)	(S)	(X)	161.8	3	40	76.5	3	51
All other	(S)	(S)	(X)	52.0	1	32	153.2	5	40
Resales ⁴	(X)	1	(X)	(X)	4	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	38	(X)	(X)	53	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
3463, Nonferrous forgings									
Total product shipments²	1 061.4	100	(X)	14 961.0	100	(X)	811.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	22.2	(Z)	35	—	—	(X)
Retail stores and outlets	—	—	(X)	(D)	(D)	(X)	—	—	(X)
Other manufacturing establishments	95.7	9	39	10 133.0	68	21	10.0	1	37
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	12.4	2	92
Shipments to all other customers:									
Wholesalers ³	62.1	6	49	31.7	(Z)	24	—	—	(X)
Retailers	0.7	(Z)	58	34.5	(Z)	32	—	—	(X)
Manufacturers	823.3	78	26	3 781.3	25	8	784.3	97	25
Federal, State, and local governments	21.0	2	35	(D)	(D)	(X)	—	—	(X)
All other	58.6	6	41	957.4	6	21	4.8	1	62
Resales ⁴	(X)	(Z)	(X)	(X)	1	(X)	(X)	(Z)	(X)
Adjustment ratio ⁵	27	(X)	(X)	12	(X)	(X)	22	(X)	(X)
3465, Automotive stampings									
3466, Crowns and closures									
3469, Metal stampings, n.e.c.									
Total product shipments²	7 970.0	100	(X)	3 828.4	100	(X)	3 800.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	521.9	7	52	1.6	(Z)	76	(S)	(S)	(X)
Retail stores and outlets	93.0	1	83	—	—	(X)	(S)	(S)	(X)
Other manufacturing establishments	327.0	4	41	420.4	11	62	(S)	(S)	(X)
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	1 008.7	13	23	337.2	9	24	(S)	(S)	(X)
Retailers	776.7	10	35	36.9	1	61	(S)	(S)	(X)
Manufacturers	4 887.1	61	12	2 800.4	73	17	(S)	(S)	(X)
Federal, State, and local governments	227.7	3	45	15.0	(Z)	44	(S)	(S)	(X)
All other	127.8	2	31	216.9	6	60	(S)	(S)	(X)
Resales ⁴	(X)	2	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵	59	(X)	(X)	58	(X)	(X)	(S)	(X)	(X)
3471, Plating and polishing									
3479, Metal coating and allied services									
3482, Small arms ammunition									
Total product shipments²	699.9	100	(X)	2 901.9	100	(X)	1 099.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	—	—	(X)	—	—	(X)
Retail stores and outlets	(D)	(D)	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	(D)	(D)	(X)	(D)	(D)	(X)	0.2	(Z)	43
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	(D)	(D)	(X)	(D)	(D)	(X)	429.1	39	32
Retailers	(D)	(D)	(X)	(D)	(D)	(X)	75.0	7	62
Manufacturers	(D)	(D)	(X)	269.1	9	39	—	—	(X)
Federal, State, and local governments	(D)	(D)	(X)	2 600.1	90	1	544.4	50	36
All other	(D)	(D)	(X)	13.4	(Z)	49	50.8	5	47
Resales ⁴	(X)	(D)	(X)	(X)	(Z)	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	-27	(X)	(X)	-3	(X)	(X)	32	(X)	(X)
3483, Ammunition, except for small arms, n.e.c.									
3484, Small arms									
3489, Ordnance and accessories, n.e.c.									
Total product shipments²	771.0	100	(X)	4 224.1	100	(X)	2 730.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	368.4	9	29	235.9	9	29
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	(S)	(S)	(X)	151.9	4	29	106.9	4	29
Other nonmanufacturing establishments	(S)	(S)	(X)	4.5	(Z)	52	2.9	(Z)	52
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	1 777.2	42	14	1 154.1	42	14
Retailers	(S)	(S)	(X)	103.6	2	29	66.4	2	29
Manufacturers	(S)	(S)	(X)	1 189.5	28	14	761.6	28	14
Federal, State, and local governments	(S)	(S)	(X)	153.3	4	23	98.2	4	23
All other	(S)	(S)	(X)	475.7	11	21	304.6	11	21
Resales ⁴	(X)	(D)	(X)	(X)	3	(X)	(X)	5	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	45	(X)	(X)	52	(X)	(X)
3491, Industrial valves									
3492, Fluid power valves and hose fittings									
3493, Steel springs, except wire									
Total product shipments²	706.7	100	(X)	2 294.5	100	(X)	1 474.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	200.1	9	29	3.5	(Z)	77
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	293.5	42	58	82.5	4	29	274.7	19	42
Other nonmanufacturing establishments	—	—	(X)	(D)	(D)	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	91.5	13	32	965.4	42	14	13.8	1	73
Retailers	7.4	1	54	(D)	(D)	(X)	2.3	(Z)	55
Manufacturers	302.1	43	26	646.1	28	14	1 177.5	80	28
Federal, State, and local governments	0.2	(Z)	59	83.3	4	23	1.3	(Z)	69
All other	11.9	2	58	258.4	11	21	1.6	(Z)	69
Resales ⁴	(X)	7	(X)	(X)	5	(X)	(X)	4	(X)
Adjustment ratio ⁵	36	(X)	(X)	53	(X)	(X)	48	(X)	(X)
3494, Valves and pipe fittings, n.e.c.									
3495, Wire springs									

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3496, Miscellaneous fabricated wire products			3497, Metal foil and leaf			3498, Fabricated pipe and fittings		
Total product shipments²	2 744.7	100	(X)	2 099.8	100	(X)	1 759.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	280.3	10	42	105.4	5	62	57.7	3	47
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	54.8	2	45	111.1	5	39	0.1	(Z)	64
Other nonmanufacturing establishments	124.2	5	89	-	-	(X)	7.9	(Z)	66
Shipments to all other customers:									
Wholesalers ³	1 109.4	40	24	397.9	19	33	906.7	52	54
Retailers	197.2	7	46	0.1	(Z)	62	0.5	(Z)	64
Manufacturers	760.1	28	24	1 438.3	68	38	340.8	19	30
Federal, State, and local governments	51.1	2	26	9.4	(Z)	62	27.9	2	51
All other	167.6	6	60	37.6	2	41	417.9	24	36
Resales ⁴	(X)	3	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵	35	(X)	(X)	39	(X)	(X)	42	(X)	(X)
	3499, Fabricated metal products, n.e.c.			35, Industrial machinery and equipment			3511, Turbines and turbine generator sets		
Total product shipments²	5 702.9	100	(X)	199 977.0	100	(X)	3 381.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	29.3	1	62	19 099.4	10	10	-	-	(X)
Retail stores and outlets	40.2	1	97	2 495.9	1	17	-	-	(X)
Other manufacturing establishments	533.2	9	60	17 005.9	9	12	94.5	3	10
Other nonmanufacturing establishments	2.3	(Z)	70	846.4	(Z)	20	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	626.8	11	34	35 345.8	18	6	208.6	6	19
Retailers	585.1	10	36	13 614.1	7	8	-	-	(X)
Manufacturers	2 646.8	46	18	64 501.8	32	5	468.5	14	15
Federal, State, and local governments	331.3	6	34	9 238.7	5	10	1 094.4	32	13
All other	907.9	16	38	37 829.0	19	10	1 515.6	45	15
Resales ⁴	(X)	4	(X)	(X)	6	(X)	(X)	1	(X)
Adjustment ratio ⁵	49	(X)	(X)	36	(X)	(X)	9	(X)	(X)
	3519, Internal combustion engines, n.e.c.			3523, Farm machinery and equipment			3524, Lawn and garden equipment		
Total product shipments²	10 908.7	100	(X)	6 384.7	100	(X)	4 061.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	860.3	8	44	2 502.6	39	48	1 107.6	27	22
Retail stores and outlets	-	-	(X)	145.0	2	52	12.5	(Z)	30
Other manufacturing establishments	2 276.8	21	21	227.9	4	36	169.7	4	26
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	3 523.8	32	27	1 247.6	20	20	940.1	23	12
Retailers	327.6	3	37	1 738.8	27	29	1 494.5	37	13
Manufacturers	2 847.8	26	22	252.2	4	17	194.0	5	28
Federal, State, and local governments	556.7	5	25	34.5	1	33	8.2	(Z)	23
All other	515.8	5	29	236.1	4	28	134.4	3	21
Resales ⁴	(X)	5	(X)	(X)	5	(X)	(X)	7	(X)
Adjustment ratio ⁵	30	(X)	(X)	27	(X)	(X)	11	(X)	(X)
	3531, Construction machinery			3532, Mining machinery			3533, Oil and gas field machinery		
Total product shipments²	11 704.6	100	(X)	1 362.9	100	(X)	2 291.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	2 904.1	25	28	128.6	9	82	199.9	9	55
Retail stores and outlets	559.0	5	39	11.7	1	78	97.2	4	45
Other manufacturing establishments	426.0	4	22	7.5	1	56	131.8	6	73
Other nonmanufacturing establishments	170.6	1	38	15.8	1	52	257.7	11	39
Shipments to all other customers:									
Wholesalers ³	3 878.3	33	29	267.7	20	30	161.5	7	61
Retailers	1 514.6	13	23	(Z)	(Z)	(X)	245.6	11	31
Manufacturers	907.5	8	15	41.9	3	51	142.4	6	32
Federal, State, and local governments	287.7	2	15	0.1	(Z)	45	20.0	1	37
All other	1 056.8	9	15	889.4	65	25	1 035.2	45	18
Resales ⁴	(X)	7	(X)	(X)	8	(X)	(X)	6	(X)
Adjustment ratio ⁵	21	(X)	(X)	33	(X)	(X)	36	(X)	(X)
	3534, Elevators and moving stairways			3535, Conveyors and conveying equipment			3536, Hoists, cranes, and monorails		
Total product shipments²	1 053.2	100	(X)	3 106.6	100	(X)	745.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	132.3	13	89	6.2	(Z)	58	(S)	(S)	(X)
Retail stores and outlets	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	54.5	5	65	25.5	1	48	(S)	(S)	(X)
Other nonmanufacturing establishments	26.5	3	44	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	280.5	27	36	484.6	16	31	(S)	(S)	(X)
Retailers	42.9	4	31	47.6	2	85	(S)	(S)	(X)
Manufacturers	227.2	22	34	2 129.2	69	24	(S)	(S)	(X)
Federal, State, and local governments	52.1	5	32	41.6	1	41	(S)	(S)	(X)
All other	237.2	23	36	371.9	12	28	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	5	(X)	(X)	4	(X)
Adjustment ratio ⁵	20	(X)	(X)	49	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3537, Industrial trucks and tractors			3541, Machine tools, metal cutting types			3542, Machine tools, metal forming types		
Total product shipments²	2 257.3	100	(X)	2 585.2	100	(X)	1 370.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	239.5	11	61	(D)	(D)	(X)	137.3	10	84
Retail stores and outlets	170.7	8	58	-	-	(X)	-	-	(X)
Other manufacturing establishments	50.9	2	53	29.1	1	48	33.6	2	46
Other nonmanufacturing establishments	-	-	(X)	5.8	(Z)	87	3.9	(Z)	71
Shipments to all other customers:									
Wholesalers ³	757.2	34	28	322.5	12	32	146.1	11	57
Retailers	191.2	8	51	(Z)	(Z)	(X)	15.9	1	71
Manufacturers	500.4	22	38	2 140.8	83	19	976.1	71	27
Federal, State, and local governments	57.6	3	34	55.7	2	26	10.4	1	54
All other	289.7	13	44	(D)	(D)	(X)	46.9	3	68
Resales ⁴	(X)	8	(X)	(X)	8	(X)	(X)	5	(X)
Adjustment ratio ⁵	42	(X)	(X)	30	(X)	(X)	51	(X)	(X)
	3543, Industrial patterns			3544, Special dies, tools, jigs, and fixtures			3545, Machine tool accessories		
Total product shipments²	558.5	100	(X)	8 147.1	100	(X)	3 422.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
All other	(S)	(S)	(X)	(S)	(S)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	(Z)	(X)	(X)	1	(X)	(X)	4	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	(S)	(X)	(X)
	3546, Power-driven handtools			3547, Rolling mill machinery			3548, Welding apparatus		
Total product shipments²	1 886.9	100	(X)	403.0	100	(X)	1 918.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	197.1	10	40	-	-	(X)	47.3	2	80
Retail stores and outlets	-	-	(X)	-	-	(X)	204.6	11	72
Other manufacturing establishments	36.7	2	34	48.8	12	89	70.7	4	89
Other nonmanufacturing establishments	1.0	(Z)	42	3.1	1	57	0.6	(Z)	72
Shipments to all other customers:									
Wholesalers ³	695.6	37	17	-	-	(X)	733.2	38	36
Retailers	530.6	28	21	-	-	(X)	86.8	5	71
Manufacturers	250.9	13	23	351.1	87	35	574.8	30	29
Federal, State, and local governments	12.4	1	26	-	-	(X)	18.2	1	49
All other	162.7	9	45	-	-	(X)	181.9	9	43
Resales ⁴	(X)	11	(X)	(X)	7	(X)	(X)	6	(X)
Adjustment ratio ⁵	18	(X)	(X)	32	(X)	(X)	28	(X)	(X)
	3549, Metalworking machinery, n.e.c.			3552, Textile machinery			3553, Woodworking machinery		
Total product shipments²	1 004.1	100	(X)	1 104.2	100	(X)	793.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	10.9	1	80	7.4	1	77	11.8	1	69
Retail stores and outlets	0.8	(Z)	72	-	-	(X)	118.3	15	84
Other manufacturing establishments	50.7	5	89	190.2	17	80	14.0	2	49
Other nonmanufacturing establishments	0.9	(Z)	72	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	313.9	31	36	143.7	13	95	41.7	5	47
Retailers	2.9	(Z)	45	34.0	3	97	506.8	64	46
Manufacturers	586.5	58	29	719.0	65	37	40.4	5	30
Federal, State, and local governments	5.5	1	49	1.4	(Z)	76	0.4	(Z)	70
All other	31.9	3	43	8.5	1	73	60.0	8	79
Resales ⁴	(X)	1	(X)	(X)	7	(X)	(X)	9	(X)
Adjustment ratio ⁵	50	(X)	(X)	58	(X)	(X)	46	(X)	(X)
	3554, Paper industries machinery			3555, Printing trades machinery			3556, Food products machinery		
Total product shipments²	1 580.7	100	(X)	2 554.3	100	(X)	1 735.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	0.3	(Z)	75	150.9	6	68	166.1	10	36
Retail stores and outlets	-	-	(X)	-	-	(X)	57.6	3	65
Other manufacturing establishments	34.8	2	47	198.1	8	51	44.5	3	24
Other nonmanufacturing establishments	8.0	1	82	25.2	1	59	47.9	3	64
Shipments to all other customers:									
Wholesalers ³	1.3	(Z)	60	242.9	10	37	127.5	7	39
Retailers	56.8	4	74	261.5	10	71	22.7	1	58
Manufacturers	1 443.2	91	28	1 085.7	43	27	1 231.0	71	17
Federal, State, and local governments	1.6	(Z)	73	20.9	1	51	1.4	(Z)	26
All other	34.8	2	67	569.1	22	39	36.5	2	25
Resales ⁴	(X)	11	(X)	(X)	9	(X)	(X)	5	(X)
Adjustment ratio ⁵	56	(X)	(X)	56	(X)	(X)	3	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
3559, Special industry machinery, n.e.c.									
3561, Pumps and pumping equipment									
3562, Ball and roller bearings									
Total product shipments²	7 951.0	100	(X)	3 447.6	100	(X)	3 563.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	167.0	2	40	150.7	4	35	796.9	22	32
Retail stores and outlets	95.6	1	95	-	-	(X)	-	-	(X)
Other manufacturing establishments	408.1	5	28	101.0	3	37	713.2	20	27
Other nonmanufacturing establishments	4.2	(Z)	74	2.9	(Z)	47	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	692.5	9	32	1 022.5	30	16	407.7	11	23
Retailers	30.5	(Z)	80	77.1	2	29	(D)	(D)	(X)
Manufacturers	5 318.7	67	22	1 148.8	33	15	1 123.1	32	17
Federal, State, and local governments	303.6	4	51	238.8	7	30	203.5	6	26
All other	930.9	12	28	705.9	20	20	284.0	8	29
Resales ⁴	(X)	5	(X)	(X)	6	(X)	(X)	3	(X)
Adjustment ratio ⁵	48	(X)	(X)	35	(X)	(X)	16	(X)	(X)
3563, Air and gas compressors									
3564, Blowers and fans									
3565, Packaging machinery									
Total product shipments²	2 628.9	100	(X)	2 181.6	100	(X)	2 039.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	383.8	15	34	25.9	1	84	126.0	6	46
Retail stores and outlets	14.1	1	53	-	-	(X)	35.1	2	65
Other manufacturing establishments	28.9	1	37	54.6	3	30	81.3	4	59
Other nonmanufacturing establishments	1.3	(Z)	63	5.6	(Z)	66	40.9	2	91
Shipments to all other customers:									
Wholesalers ³	744.1	28	24	204.6	9	48	278.0	14	96
Retailers	291.3	11	36	172.4	8	40	58.2	3	96
Manufacturers	652.6	25	32	651.3	30	29	1 226.8	60	35
Federal, State, and local governments	49.7	2	33	33.8	2	33	48.2	2	96
All other	463.0	18	33	1 033.2	47	22	145.4	7	96
Resales ⁴	(X)	6	(X)	(X)	4	(X)	(X)	4	(X)
Adjustment ratio ⁵	39	(X)	(X)	43	(X)	(X)	30	(X)	(X)
3566, Speed changers, drives, and gears									
3567, Industrial furnaces and ovens									
3568, Power transmission equipment, n.e.c.									
Total product shipments²	1 541.4	100	(X)	1 235.5	100	(X)	2 071.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	37.4	2	49
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	76.9	4	39
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	682.7	33	29
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	1.0	(Z)	85
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	1 160.2	56	21
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	25.1	1	29
All other	(S)	(S)	(X)	(S)	(S)	(X)	87.6	4	51
Resales ⁴	(X)	4	(X)	(X)	3	(X)	(X)	4	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	47	(X)	(X)
3569, General industrial machinery, n.e.c.									
3571, Electronic computers									
3572, Computer storage devices									
Total product shipments²	3 840.5	100	(X)	26 624.2	100	(X)	6 904.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	91.8	2	46	2 863.6	11	15	747.8	11	15
Retail stores and outlets	-	-	(X)	440.6	2	31	114.8	2	31
Other manufacturing establishments	199.4	5	55	2 959.8	11	28	760.6	11	28
Other nonmanufacturing establishments	43.3	1	91	1.3	(Z)	43	0.3	(Z)	43
Shipments to all other customers:									
Wholesalers ³	736.9	19	22	2 452.2	9	11	632.7	9	11
Retailers	163.1	4	77	1 286.5	5	20	335.2	5	20
Manufacturers	1 979.1	52	15	4 242.1	16	17	1 087.6	16	17
Federal, State, and local governments	174.1	5	43	2 017.6	8	18	525.6	8	18
All other	452.8	12	24	10 360.6	39	19	2 700.2	39	19
Resales ⁴	(X)	3	(X)	(X)	13	(X)	(X)	8	(X)
Adjustment ratio ⁵	41	(X)	(X)	(Z)	(X)	(X)	28	(X)	(X)
3575, Computer terminals									
3577, Computer peripheral equipment, n.e.c.									
3578, Calculating and accounting equipment									
Total product shipments²	2 729.7	100	(X)	12 542.3	100	(X)	1 208.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	1 890.6	15	15	189.3	16	55
Retail stores and outlets	(S)	(S)	(X)	198.2	2	31	26.7	2	69
Other manufacturing establishments	(S)	(S)	(X)	1 313.0	10	28	54.1	4	62
Other nonmanufacturing establishments	(S)	(S)	(X)	0.6	(Z)	43	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	1 096.5	9	11	116.1	10	36
Retailers	(S)	(S)	(X)	578.8	5	20	246.5	20	41
Manufacturers	(S)	(S)	(X)	1 877.8	15	17	20.8	2	43
Federal, State, and local governments	(S)	(S)	(X)	907.6	7	18	29.0	2	84
All other	(S)	(S)	(X)	4 679.1	37	19	526.0	44	34
Resales ⁴	(X)	3	(X)	(X)	3	(X)	(X)	5	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	47	(X)	(X)	41	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3579, Office machines, n.e.c.			3581, Automatic vending machines			3582, Commercial laundry equipment		
Total product shipments² -----	3 252.7	100	(X)	695.2	100	(X)	433.2	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	572.6	18	26	(S)	(S)	(X)	-	-	(X)
Retail stores and outlets-----	-	-	(X)	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments-----	327.4	10	40	(S)	(S)	(X)	-	-	(X)
Other nonmanufacturing establishments-----	-	-	(X)	(S)	(S)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³ -----	275.7	8	25	(S)	(S)	(X)	322.2	74	29
Retailers-----	198.1	6	23	(S)	(S)	(X)	27.8	6	52
Manufacturers-----	353.2	11	32	(S)	(S)	(X)	12.1	3	56
Federal, State, and local governments-----	250.2	8	28	(S)	(S)	(X)	21.5	5	87
All other-----	1 275.6	39	21	(S)	(S)	(X)	49.6	11	90
Resales ⁴ -----	(X)	17	(X)	(X)	1	(X)	(X)	6	(X)
Adjustment ratio ⁵ -----	18	(X)	(X)	(S)	(X)	(X)	31	(X)	(X)
	3585, Refrigeration and heating equipment			3586, Measuring and dispensing pumps			3589, Service industry machinery, n.e.c.		
Total product shipments² -----	15 337.5	100	(X)	916.7	100	(X)	3 926.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	944.1	6	17	114.2	12	78	(S)	(S)	(X)
Retail stores and outlets-----	141.1	1	55	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments-----	2 274.0	15	36	211.2	23	67	(S)	(S)	(X)
Other nonmanufacturing establishments-----	105.4	1	76	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³ -----	3 435.9	22	12	405.8	44	51	(S)	(S)	(X)
Retailers-----	1 552.0	10	19	28.2	3	49	(S)	(S)	(X)
Manufacturers-----	5 003.2	33	26	53.5	6	35	(S)	(S)	(X)
Federal, State, and local governments-----	159.2	1	32	6.8	1	67	(S)	(S)	(X)
All other-----	1 722.6	11	21	96.9	11	82	(S)	(S)	(X)
Resales ⁴ -----	(X)	5	(X)	(X)	(D)	(X)	(X)	5	(X)
Adjustment ratio ⁵ -----	30	(X)	(X)	55	(X)	(X)	(S)	(X)	(X)
	3592, Carburetors, pistons, rings, and valves			3593, Fluid power cylinders and actuators			3594, Fluid power pumps and motors		
Total product shipments² -----	2 038.3	100	(X)	1 706.4	100	(X)	1 458.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	113.6	6	64	(S)	(S)	(X)	65.2	4	35
Retail stores and outlets-----	-	-	(X)	(S)	(S)	(X)	0.2	(Z)	53
Other manufacturing establishments-----	725.3	36	47	(S)	(S)	(X)	91.5	6	37
Other nonmanufacturing establishments-----	-	-	(X)	(S)	(S)	(X)	1.2	(Z)	63
Shipments to all other customers:									
Wholesalers ³ -----	290.9	14	30	(S)	(S)	(X)	417.0	29	24
Retailers-----	0.8	(Z)	51	(S)	(S)	(X)	34.6	2	36
Manufacturers-----	727.8	36	21	(S)	(S)	(X)	466.1	32	32
Federal, State, and local governments-----	3.9	(Z)	44	(S)	(S)	(X)	95.7	7	33
All other-----	175.9	9	39	(S)	(S)	(X)	287.2	20	33
Resales ⁴ -----	(X)	1	(X)	(X)	2	(X)	(X)	2	(X)
Adjustment ratio ⁵ -----	26	(X)	(X)	(S)	(X)	(X)	38	(X)	(X)
	3596, Scales and balances, except laboratory			3599, Industrial machinery, n.e.c.			36, Electronic and other electric equipment		
Total product shipments² -----	592.5	100	(X)	12 788.1	100	(X)	162 933.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	(S)	(S)	(X)	(S)	(S)	(X)	19 340.7	12	15
Retail stores and outlets-----	(S)	(S)	(X)	(S)	(S)	(X)	676.9	(Z)	22
Other manufacturing establishments-----	(S)	(S)	(X)	(S)	(S)	(X)	23 291.4	14	12
Other nonmanufacturing establishments-----	(S)	(S)	(X)	(S)	(S)	(X)	508.1	(Z)	27
Shipments to all other customers:									
Wholesalers ³ -----	(S)	(S)	(X)	(S)	(S)	(X)	29 058.9	18	7
Retailers-----	(S)	(S)	(X)	(S)	(S)	(X)	15 675.5	10	8
Manufacturers-----	(S)	(S)	(X)	(S)	(S)	(X)	39 491.2	24	11
Federal, State, and local governments-----	(S)	(S)	(X)	(S)	(S)	(X)	18 557.9	11	10
All other-----	(S)	(S)	(X)	(S)	(S)	(X)	16 332.8	10	7
Resales ⁴ -----	(X)	6	(X)	(X)	1	(X)	(X)	4	(X)
Adjustment ratio ⁵ -----	(S)	(X)	(X)	(S)	(X)	(X)	26	(X)	(X)
	3612, Transformers, except electronic			3613, Switchgear and switchboard apparatus			3621, Motors and generators		
Total product shipments² -----	3 136.9	100	(X)	4 597.6	100	(X)	6 982.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³ -----	169.8	5	39	52.1	1	43	441.2	6	46
Retail stores and outlets-----	-	-	(X)	-	-	(X)	(D)	(D)	(X)
Other manufacturing establishments-----	423.3	13	22	1 228.6	27	28	1 534.0	22	44
Other nonmanufacturing establishments-----	-	-	(X)	30.1	1	49	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³ -----	300.4	10	31	1 154.8	25	26	738.0	11	28
Retailers-----	2.6	(Z)	34	20.4	(Z)	30	-	-	(X)
Manufacturers-----	352.7	11	23	963.7	21	28	3 508.2	50	32
Federal, State, and local governments-----	68.1	2	18	57.1	1	23	369.8	5	37
All other-----	1 819.9	58	19	1 090.8	24	24	276.7	4	32
Resales ⁴ -----	(X)	2	(X)	(X)	5	(X)	(X)	1	(X)
Adjustment ratio ⁵ -----	18	(X)	(X)	13	(X)	(X)	45	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3624, Carbon and graphite products			3625, Relays and industrial controls			3629, Electrical industrial apparatus, n.e.c.		
Total product shipments²	1 196.2	100	(X)	6 040.3	100	(X)	1 163.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	176.1	3	39	6.7	1	70
Retail stores and outlets	—	—	(X)	0.8	(Z)	74	4.8	(Z)	70
Other manufacturing establishments	78.4	7	31	1 118.7	19	26	120.3	10	76
Other nonmanufacturing establishments	—	—	(X)	20.2	(Z)	56	5.0	(Z)	50
Shipments to all other customers:									
Wholesalers ³	19.2	2	37	1 836.6	30	34	150.6	13	27
Retailers	6.3	1	51	29.4	(Z)	36	6.3	1	70
Manufacturers	1 064.5	89	25	2 261.4	37	22	529.0	45	35
Federal, State, and local governments	5.2	(Z)	48	142.2	2	28	54.7	5	36
All other	22.6	2	43	454.9	8	28	266.2	25	35
Resales ⁴	(X)	7	(X)	(X)	4	(X)	(X)	2	(X)
Adjustment ratio ⁵	27	(X)	(X)	37	(X)	(X)	49	(X)	(X)
	3631, Household cooking equipment			3632, Household refrigerators and freezers			3633, Household laundry equipment		
Total product shipments²	3 232.5	100	(X)	3 322.1	100	(X)	2 790.5	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	326.3	10	47	458.1	14	24	(D)	(D)	(X)
Retail stores and outlets	1.9	(Z)	39	—	—	(X)	—	—	(X)
Other manufacturing establishments	61.6	2	48	97.0	3	24	(D)	(D)	(X)
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	(D)	(D)	(X)
Shipments to all other customers:									
Wholesalers ³	799.0	25	23	576.3	17	16	(D)	(D)	(X)
Retailers	1 851.8	57	33	2 068.0	62	21	(D)	(D)	(X)
Manufacturers	127.5	4	26	84.8	3	19	17.2	1	18
Federal, State, and local governments	6.1	(Z)	27	7.8	(Z)	21	(D)	(D)	(X)
All other	58.3	2	24	30.1	1	16	12.9	(Z)	22
Resales ⁴	(X)	22	(X)	(X)	(D)	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	26	(X)	(X)	9	(X)	(X)	7	(X)	(X)
	3634, Electric housewares and fans			3635, Household vacuum cleaners			3639, Household appliances, n.e.c.		
Total product shipments²	2 589.1	100	(X)	1 290.6	100	(X)	2 284.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	337.7	13	56	31.8	2	34	(D)	(D)	(X)
Retail stores and outlets	53.4	2	55	—	—	(X)	20.9	1	75
Other manufacturing establishments	22.3	1	45	2.6	(Z)	46	(D)	(D)	(X)
Other nonmanufacturing establishments	31.5	1	64	—	—	(X)	(Z)	(Z)	(X)
Shipments to all other customers:									
Wholesalers ³	448.9	17	28	55.2	4	28	1 007.4	44	1
Retailers	1 549.1	60	18	807.5	63	28	799.4	35	0
Manufacturers	101.2	4	67	5.1	(Z)	46	(D)	(D)	(X)
Federal, State, and local governments	17.2	1	33	0.5	(Z)	33	(D)	(D)	(X)
All other	27.9	1	42	387.7	30	45	(D)	(D)	(X)
Resales ⁴	(X)	9	(X)	(X)	4	(X)	(X)	1	(X)
Adjustment ratio ⁵	32	(X)	(X)	21	(X)	(X)	-6	(X)	(X)
	3641, Electric lamp bulbs and tubes			3643, Current-carrying wiring devices			3644, Noncurrent-carrying wiring devices		
Total product shipments²	2 988.3	100	(X)	3 864.0	100	(X)	2 798.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	63.6	2	86	539.7	14	34	272.1	10	28
Retail stores and outlets	—	—	(X)	130.4	3	58	—	—	(X)
Other manufacturing establishments	54.0	2	53	412.4	11	25	45.1	2	40
Other nonmanufacturing establishments	164.7	6	67	10.6	(Z)	58	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	2 538.4	85	63	931.3	24	22	1 761.8	63	15
Retailers	25.2	1	48	229.8	6	51	49.7	2	41
Manufacturers	93.0	3	50	1 267.7	33	19	308.5	11	34
Federal, State, and local governments	15.7	1	87	49.9	1	39	22.1	1	31
All other	33.8	1	49	292.2	8	38	338.7	12	35
Resales ⁴	(X)	3	(X)	(X)	2	(X)	(X)	3	(X)
Adjustment ratio ⁵	49	(X)	(X)	34	(X)	(X)	23	(X)	(X)
	3645, Residential lighting fixtures			3646, Commercial lighting fixtures			3647, Vehicular lighting equipment		
Total product shipments²	1 772.1	100	(X)	2 644.4	100	(X)	1 366.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	1.9	(Z)	50	30.5	2	74
Retail stores and outlets	(S)	(S)	(X)	—	—	(X)	20.9	2	74
Other manufacturing establishments	(S)	(S)	(X)	30.0	1	42	1 014.9	74	31
Other nonmanufacturing establishments	(S)	(S)	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	34	1 531.9	58	28	76.3	6	46
Retailers	(S)	(S)	(X)	164.6	6	44	—	—	(X)
Manufacturers	(S)	(S)	(X)	63.0	2	55	174.8	13	34
Federal, State, and local governments	(S)	(S)	(X)	21.2	1	63	(Z)	(Z)	(X)
All other	(S)	(S)	(X)	831.9	31	61	49.0	4	41
Resales ⁴	(X)	4	(X)	(X)	1	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	40	(X)	(X)	17	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3648, Lighting equipment, n.e.c.			3651, Household audio and video equipment			3652, Prerecorded records and tapes		
Total product shipments²	1 700.7	100	(X)	5 925.3	100	(X)	1 859.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	10.5	1	52	1 746.6	29	26	704.0	38	49
Retail stores and outlets	—	—	(X)	131.5	2	56	—	—	(X)
Other manufacturing establishments	39.7	2	65	306.5	5	43	179.2	10	86
Other nonmanufacturing establishments	(Z)	(Z)	(X)	1.0	(Z)	56	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	948.3	56	29	2 051.0	35	26	760.2	41	23
Retailers	282.4	17	46	966.1	16	25	91.8	5	51
Manufacturers	77.7	5	47	332.6	6	34	78.7	4	59
Federal, State, and local governments	120.3	7	88	60.8	1	31	4.6	(Z)	50
All other	221.6	13	44	329.3	6	31	40.8	2	43
Resales ⁴	(X)	4	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	49	(X)	(X)	31	(X)	(X)	25	(X)	(X)
	3661, Telephone and telegraph apparatus			3663, Radio and television communications equipment			3669, Communications equipment, n.e.c.		
Total product shipments²	16 528.5	100	(X)	13 255.9	100	(X)	2 126.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	8 613.7	52	33	287.6	2	26	46.0	2	26
Retail stores and outlets	31.5	(Z)	83	—	—	(X)	—	—	(X)
Other manufacturing establishments	1 019.5	6	25	294.0	2	18	52.5	2	18
Other nonmanufacturing establishments	24.4	(Z)	37	16.7	(Z)	45	2.4	(Z)	45
Shipments to all other customers:									
Wholesalers ³	3 833.3	23	30	755.0	6	18	122.6	6	18
Retailers	188.0	1	28	397.0	3	33	63.1	3	19
Manufacturers	656.2	4	25	1 648.5	12	18	263.8	12	18
Federal, State, and local governments	772.2	5	31	8 624.8	65	12	1 378.7	65	12
All other	1 389.6	8	12	1 232.3	9	12	196.8	9	12
Resales ⁴	(X)	4	(X)	(X)	4	(X)	(X)	3	(X)
Adjustment ratio ⁵	17	(X)	(X)	31	(X)	(X)	36	(X)	(X)
	3671, Electron tubes			3672, Printed circuit boards			3674, Semiconductors and related devices		
Total product shipments²	2 332.3	100	(X)	4 813.9	100	(X)	17 928.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	264.1	5	29	641.7	4	7
Retail stores and outlets	(S)	(S)	(X)	9.5	(Z)	74	—	—	(X)
Other manufacturing establishments	(S)	(S)	(X)	1 321.1	27	41	4 105.8	23	6
Other nonmanufacturing establishments	(S)	(S)	(X)	3.9	(Z)	52	32.1	(Z)	19
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	51	264.3	5	21	1 428.5	8	4
Retailers	(S)	(S)	(X)	42.9	1	32	46.4	(Z)	7
Manufacturers	(S)	(S)	(X)	1 521.4	32	9	10 514.3	59	39
Federal, State, and local governments	(S)	(S)	(X)	496.9	10	30	348.3	2	17
All other	(S)	(S)	(X)	889.7	18	27	811.8	5	9
Resales ⁴	(X)	3	(X)	(X)	1	(X)	(X)	9	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	13	(X)	(X)	1	(X)	(X)
	3675, Electronic capacitors			3676, Electronic resistors			3677, Electronic coils and transformers		
Total product shipments²	1 307.2	100	(X)	860.2	100	(X)	1 184.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	30.7	2	63	—	—	(X)	(S)	(S)	(X)
Retail stores and outlets	(D)	(D)	(X)	—	—	(X)	(S)	(S)	(X)
Other manufacturing establishments	43.0	3	57	39.5	5	43	(S)	(S)	(X)
Other nonmanufacturing establishments	(Z)	(Z)	(X)	—	—	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	182.7	14	53	172.8	20	40	(S)	(S)	68
Retailers	(Z)	(Z)	(X)	(Z)	(Z)	(X)	(S)	(S)	(X)
Manufacturers	996.7	76	26	644.3	75	35	(S)	(S)	(X)
Federal, State, and local governments	(D)	(D)	(X)	3.2	(Z)	54	(S)	(S)	(X)
All other	50.9	4	42	0.5	(Z)	53	(S)	(S)	(X)
Resales ⁴	(X)	3	(X)	(X)	3	(X)	(X)	2	(X)
Adjustment ratio ⁵	41	(X)	(X)	47	(X)	(X)	(S)	(X)	(X)
	3678, Electronic connectors			3679, Electronic components, n.e.c.			3691, Storage batteries		
Total product shipments²	3 731.4	100	(X)	14 563.0	100	(X)	3 194.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	351.4	9	37	683.4	5	29	583.7	18	60
Retail stores and outlets	—	—	(X)	(D)	(D)	(X)	3.2	(Z)	78
Other manufacturing establishments	326.4	9	33	4 002.9	27	41	501.8	16	60
Other nonmanufacturing establishments	134.6	4	77	(D)	(D)	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	257.6	7	34	806.3	6	21	228.7	7	34
Retailers	1.4	(Z)	40	133.0	1	32	1 259.9	39	60
Manufacturers	2 256.3	60	24	4 619.7	32	9	602.6	19	33
Federal, State, and local governments	163.7	4	46	1 573.0	11	30	12.7	(Z)	65
All other	240.1	6	37	2 704.0	19	27	2.1	(Z)	57
Resales ⁴	(X)	2	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	32	(X)	(X)	37	(X)	(X)	57	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3692, Primary batteries, dry and wet			3694, Engine electrical equipment			3695, Magnetic and optical recording media		
Total product shipments ²	1 919.3	100	(X)	6 337.9	100	(X)	3 778.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	133.7	7	36	475.0	7	22	428.0	11	29
Retail stores and outlets	-	-	(X)	-	-	(X)	38.5	1	74
Other manufacturing establishments	259.1	14	28	3 033.5	48	23	767.9	20	41
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	3.1	(Z)	52
Shipments to all other customers:									
Wholesalers ³	324.2	17	24	825.9	13	22	245.5	6	21
Retailers	(D)	(D)	(X)	325.2	5	25	90.8	2	32
Manufacturers	(D)	(D)	(X)	(D)	(D)	(X)	869.9	23	9
Federal, State, and local governments	49.9	3	16	(D)	(D)	(X)	322.0	9	30
All other	9.9	1	21	107.9	2	15	1 013.1	27	27
Resales ⁴	(X)	(D)	(X)	(X)	4	(X)	(X)	5	(X)
Adjustment ratio ⁵	7	(X)	(X)	10	(X)	(X)	37	(X)	(X)
	3699, Electrical equipment and supplies, n.e.c.			37, Transportation equipment			3711, Motor vehicles and car bodies		
Total product shipments ²	5 525.1	100	(X)	322 168.9	100	(X)	130 856.8	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	120.7	2	26	21 643.0	7	15	(D)	(D)	(X)
Retail stores and outlets	-	-	(X)	1 355.0	(Z)	18	(D)	(D)	(X)
Other manufacturing establishments	156.8	3	19	39 443.9	12	18	291.8	(Z)	16
Other nonmanufacturing establishments	3.8	(Z)	36	369.6	(Z)	21	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	1 135.2	21	20	18 690.6	6	8	8 443.6	6	12
Retailers	305.2	6	31	104 518.6	32	15	(D)	(D)	(X)
Manufacturers	996.8	18	26	28 317.7	9	6	2 076.6	2	17
Federal, State, and local governments	2 208.1	40	18	75 348.9	23	2	2 428.0	2	13
All other	598.6	11	37	31 575.9	10	1	5 360.8	4	17
Resales ⁴	(X)	3	(X)	(X)	2	(X)	(X)	1	(X)
Adjustment ratio ⁵	30	(X)	(X)	7	(X)	(X)	5	(X)	(X)
	3713, Truck and bus bodies			3714, Motor vehicle parts and accessories			3715, Truck trailers		
Total product shipments ²	4 482.4	100	(X)	60 816.0	100	(X)	3 138.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	97.1	2	41	1 581.5	3	15	241.2	8	56
Retail stores and outlets	(D)	(D)	(X)	(D)	(D)	(X)	84.3	3	59
Other manufacturing establishments	29.3	1	38	34 110.9	56	20	9.0	(Z)	59
Other nonmanufacturing establishments	(D)	(D)	(X)	(D)	(D)	(X)	114.2	4	59
Shipments to all other customers:									
Wholesalers ³	1 299.4	29	38	4 941.3	8	13	377.1	12	41
Retailers	1 562.8	35	23	2 756.1	5	23	715.5	23	30
Manufacturers	119.7	3	18	11 461.7	19	7	17.1	1	52
Federal, State, and local governments	551.0	12	13	1 813.4	3	22	88.1	3	30
All other	794.8	18	18	4 037.9	7	14	1 491.5	48	44
Resales ⁴	(X)	3	(X)	(X)	3	(X)	(X)	4	(X)
Adjustment ratio ⁵	11	(X)	(X)	9	(X)	(X)	34	(X)	(X)
	3716, Motor homes			3721, Aircraft			3724, Aircraft engines and engine parts		
Total product shipments ²	2 373.5	100	(X)	36 002.8	100	(X)	18 821.9	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	-	-	(X)	(D)	(D)	(X)	-	-	(X)
Retail stores and outlets	57.6	2	81	(D)	(D)	(X)	-	-	(X)
Other manufacturing establishments	-	-	(X)	444.6	1	1	57.9	(Z)	14
Other nonmanufacturing establishments	-	-	(X)	(D)	(D)	(X)	1.2	(Z)	26
Shipments to all other customers:									
Wholesalers ³	764.0	32	43	(D)	(D)	(X)	129.9	1	20
Retailers	1 438.3	61	38	(D)	(D)	(X)	36.0	(Z)	29
Manufacturers	74.0	3	35	1 789.1	5	1	6 143.4	33	19
Federal, State, and local governments	(Z)	(Z)	(X)	20 742.9	58	1	9 655.3	51	20
All other	59.6	2	32	(D)	(D)	(X)	2 798.3	15	24
Resales ⁴	(X)	2	(X)	(X)	3	(X)	(X)	3	(X)
Adjustment ratio ⁵	32	(X)	(X)	-5	(X)	(X)	10	(X)	(X)
	3728, Aircraft parts and equipment, n.e.c.			3731, Ship building and repairing			3732, Boat building and repairing		
Total product shipments ²	19 528.9	100	(X)	8 343.1	100	(X)	5 218.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	11.0	(Z)	81	6.4	(Z)	41	55.2	1	83
Retail stores and outlets	109.2	1	53	-	-	(X)	159.8	3	89
Other manufacturing establishments	3 415.4	17	39	(D)	(D)	(X)	24.6	(Z)	42
Other nonmanufacturing establishments	13.3	(Z)	50	(D)	(D)	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	87.7	(Z)	26	(D)	(D)	(X)	1 181.6	23	56
Retailers	68.2	(Z)	32	104.6	1	52	3 397.9	65	29
Manufacturers	4 984.3	26	18	151.3	2	17	302.8	6	48
Federal, State, and local governments	9 306.8	48	22	7 305.3	88	8	39.7	1	32
All other	1 532.9	8	37	(D)	(D)	(X)	56.9	1	28
Resales ⁴	(X)	(D)	(X)	(X)	1	(X)	(X)	2	(X)
Adjustment ratio ⁵	28	(X)	(X)	5	(X)	(X)	32	(X)	(X)

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3743, Railroad equipment			3751, Motorcycles, bicycles, and parts			3761, Guided missiles and space vehicles		
Total product shipments²	2 138.6	100	(X)	1 152.4	100	(X)	16 012.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	201.1	17	50	—	—	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	336.0	16	57	—	—	(X)	148.6	1	(X)
Other nonmanufacturing establishments	52.6	2	51	—	—	(X)	(Z)	(Z)	(X)
Shipments to all other customers:									
Wholesalers ³	5.4	(Z)	84	258.0	22	40	(D)	(D)	(X)
Retailers	—	—	(X)	573.9	50	34	(D)	(D)	(X)
Manufacturers	139.3	7	32	49.2	4	33	(D)	(D)	(X)
Federal, State, and local governments	230.5	11	49	20.3	2	49	14 621.5	91	1
All other	1 374.8	64	31	50.0	4	50	(D)	(D)	(X)
Resales ⁴	(X)	4	(X)	(X)	5	(X)	(X)	(D)	(X)
Adjustment ratio ⁵	33	(X)	(X)	25	(X)	(X)	-14	(X)	(X)
	3764, Space propulsion units and parts			3769, Space vehicle equipment, n.e.c.			3792, Travel trailers and campers		
Total product shipments²	3 464.9	100	(X)	3 354.4	100	(X)	1 871.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	—	—	(X)	—	—	(X)	—	—	(X)
Retail stores and outlets	—	—	(X)	—	—	(X)	243.3	13	48
Other manufacturing establishments	(D)	(D)	(X)	62.9	2	22	—	—	(X)
Other nonmanufacturing establishments	—	—	(X)	—	—	(X)	—	—	(X)
Shipments to all other customers:									
Wholesalers ³	—	—	(X)	—	—	(X)	656.0	35	33
Retailers	(D)	(D)	(X)	—	—	(X)	742.2	40	40
Manufacturers	164.3	5	1	494.8	15	30	227.7	12	37
Federal, State, and local governments	2 994.3	86	1	2 731.7	81	17	—	—	(X)
All other	(D)	(D)	(X)	64.9	2	28	1.8	(Z)	43
Resales ⁴	(X)	(D)	(X)	(X)	(D)	(X)	(X)	4	(X)
Adjustment ratio ⁵	-3	(X)	(X)	14	(X)	(X)	39	(X)	(X)
	3795, Tanks and tank components			3799, Transportation equipment, n.e.c.			38, Instruments and related products		
Total product shipments²	3 016.9	100	(X)	1 576.3	100	(X)	98 759.4	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	33.4	1	34	59.4	4	53	11 748.7	12	9
Retail stores and outlets	—	—	(X)	85.7	5	65	515.5	1	48
Other manufacturing establishments	66.3	2	23	352.0	22	58	3 538.0	4	11
Other nonmanufacturing establishments	—	—	(X)	2.1	(Z)	65	931.7	1	17
Shipments to all other customers:									
Wholesalers ³	(D)	(D)	(X)	528.9	34	30	13 317.3	13	12
Retailers	—	—	(X)	121.6	8	36	4 944.2	5	11
Manufacturers	59.8	2	19	62.6	4	66	14 593.8	15	7
Federal, State, and local governments	2 816.3	93	18	3.7	(Z)	36	26 582.9	27	12
All other	(D)	(D)	(X)	360.3	23	49	22 587.3	23	7
Resales ⁴	(X)	(D)	(X)	(X)	3	(X)	(X)	3	(X)
Adjustment ratio ⁵	11	(X)	(X)	42	(X)	(X)	28	(X)	(X)
	3812, Search and navigation equipment			3821, Laboratory apparatus and furniture			3822, Environmental controls		
Total product shipments²	34 016.3	100	(X)	1 618.8	100	(X)	2 024.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	681.2	2	26	52.4	3	73	58.4	3	27
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	1 004.9	3	18	101.2	6	36	185.1	9	26
Other nonmanufacturing establishments	38.5	(Z)	45	0.3	(Z)	55	107.3	5	42
Shipments to all other customers:									
Wholesalers ³	1 917.1	6	18	266.3	16	34	346.6	17	32
Retailers	876.4	3	19	21.1	1	34	43.0	2	26
Manufacturers	4 207.1	12	18	458.8	28	25	1 168.6	58	14
Federal, State, and local governments	21 694.0	64	12	425.9	26	42	9.0	(Z)	40
All other	3 597.7	11	12	292.9	18	26	106.6	5	25
Resales ⁴	(X)	(Z)	(X)	(X)	5	(X)	(X)	4	(X)
Adjustment ratio ⁵	31	(X)	(X)	28	(X)	(X)	18	(X)	(X)
	3823, Process control instruments			3824, Fluid meters and counting devices			3825, Instruments to measure electricity		
Total product shipments²	4 370.9	100	(X)	1 133.1	100	(X)	7 612.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	51.2	1	63	9.1	1	49	292.5	4	36
Retail stores and outlets	—	—	(X)	—	—	(X)	—	—	(X)
Other manufacturing establishments	322.5	7	47	40.0	4	48	185.3	2	27
Other nonmanufacturing establishments	14.3	(Z)	79	—	—	(X)	0.5	(Z)	51
Shipments to all other customers:									
Wholesalers ³	776.3	18	29	222.1	20	32	671.5	9	29
Retailers	139.0	3	55	—	—	(X)	664.6	9	39
Manufacturers	1 983.1	45	23	171.1	15	36	2 189.7	29	15
Federal, State, and local governments	188.8	4	29	62.4	6	52	1 319.7	17	15
All other	895.7	20	26	628.4	55	42	2 288.4	30	19
Resales ⁴	(X)	3	(X)	(X)	2	(X)	(X)	3	(X)
Adjustment ratio ⁵	46	(X)	(X)	54	(X)	(X)	27	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3826, Analytical instruments			3827, Optical instruments and lenses			3829, Measuring and controlling devices, n.e.c.		
Total product shipments²	3 156.6	100	(X)	1 990.2	100	(X)	3 389.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	169.1	5	37	129.2	6	37	122.8	4	52
Retail stores and outlets	-	-	(X)	-	-	(X)	-	-	(X)
Other manufacturing establishments	52.8	2	57	29.2	1	57	161.5	5	46
Other nonmanufacturing establishments	31.4	1	52	19.9	1	52	0.4	(Z)	1
Shipments to all other customers:									
Wholesalers ³	377.5	12	30	212.2	11	30	414.7	12	38
Retailers	111.8	4	50	70.9	4	50	49.6	1	36
Manufacturers	853.0	27	19	541.3	27	19	957.5	28	22
Federal, State, and local governments	612.1	19	22	433.4	22	22	531.7	16	32
All other	948.9	30	21	554.0	28	21	1 151.1	34	29
Resales ⁴	(X)	4	(X)	(X)	4	(X)	(X)	4	(X)
Adjustment ratio ⁵	35	(X)	(X)	54	(X)	(X)	37	(X)	(X)
	3841, Surgical and medical instruments			3842, Surgical appliances and supplies			3843, Dental equipment and supplies		
Total product shipments²	7 231.7	100	(X)	7 981.3	100	(X)	1 241.3	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	312.0	4	30	326.1	4	31	134.3	11	36
Retail stores and outlets	40.8	1	49	1.1	(Z)	74	-	-	(X)
Other manufacturing establishments	149.3	2	58	(D)	(D)	(X)	9.1	1	53
Other nonmanufacturing establishments	119.6	2	66	(D)	(D)	(X)	0.1	(Z)	77
Shipments to all other customers:									
Wholesalers ³	2 738.9	38	41	2 366.8	30	25	524.0	42	33
Retailers	166.7	2	36	1 309.4	16	21	95.5	8	66
Manufacturers	303.1	4	26	362.6	5	32	200.3	16	48
Federal, State, and local governments	85.8	1	20	447.0	6	27	55.2	4	35
All other	3 315.5	46	16	2 778.3	35	25	222.9	18	38
Resales ⁴	(X)	5	(X)	(X)	5	(X)	(X)	9	(X)
Adjustment ratio ⁵	23	(X)	(X)	32	(X)	(X)	51	(X)	(X)
	3844, X-ray apparatus and tubes			3845, Electromedical equipment			3851, Ophthalmic goods		
Total product shipments²	1 556.8	100	(X)	3 513.3	100	(X)	1 445.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	57.8	4	35	319.5	9	35	36.0	2	27
Retail stores and outlets	-	-	(X)	-	-	(X)	244.9	17	93
Other manufacturing establishments	17.9	1	34	40.9	1	34	0.7	(Z)	42
Other nonmanufacturing establishments	85.9	6	57	181.7	5	57	3.1	(Z)	46
Shipments to all other customers:									
Wholesalers ³	71.1	5	23	150.4	4	23	316.4	22	34
Retailers	4.7	(Z)	54	10.0	(Z)	54	177.6	12	25
Manufacturers	140.4	9	27	285.7	8	27	240.9	17	32
Federal, State, and local governments	79.6	5	26	168.3	5	26	5.9	(Z)	31
All other	1 099.4	71	20	2 356.9	67	20	419.6	29	31
Resales ⁴	(X)	7	(X)	(X)	6	(X)	(X)	12	(X)
Adjustment ratio ⁵	41	(X)	(X)	30	(X)	(X)	21	(X)	(X)
	3861, Photographic equipment and supplies			3873, Watches, clocks, watchcases, and parts			39, Miscellaneous manufacturing industries		
Total product shipments²	15 325.3	100	(X)	1 151.9	100	(X)	29 500.6	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	8 995.7	59	10	1.5	(Z)	58	3 309.4	11	21
Retail stores and outlets	3.6	(Z)	67	225.0	20	43	1 268.0	4	33
Other manufacturing establishments	(D)	(D)	(X)	169.9	15	55	876.4	3	30
Other nonmanufacturing establishments	(D)	(D)	(X)	-	-	(X)	239.3	1	63
Shipments to all other customers:									
Wholesalers ³	1 765.1	12	11	180.3	16	27	7 449.7	25	11
Retailers	879.6	6	14	324.5	28	30	10 082.6	34	9
Manufacturers	346.6	2	24	183.9	16	37	3 348.0	11	14
Federal, State, and local governments	458.1	3	14	5.9	1	40	507.1	2	29
All other	1 870.2	12	12	60.9	5	77	2 420.1	8	17
Resales ⁴	(X)	7	(X)	(X)	9	(X)	(X)	7	(X)
Adjustment ratio ⁵	2	(X)	(X)	34	(X)	(X)	51	(X)	(X)
	3911, Jewelry, precious metal			3914, Silverware and plated ware			3915, Jewelers' materials and lapidary work		
Total product shipments²	3 858.3	100	(X)	424.2	100	(X)	910.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	15.5	4	83	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	1.7	(Z)	64	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	(D)	(D)	(X)	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	136.2	32	52	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	(D)	(D)	(X)	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	0.5	(Z)	57	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	3.7	1	1	(S)	(S)	(X)
All other	(S)	(S)	(X)	(D)	(D)	(X)	(S)	(S)	(X)
Resales ⁴	(X)	4	(X)	(X)	21	(X)	(X)	1	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	-2	(X)	(X)	(S)	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Class of customer	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)	Value (million dollars)	Percent of total	Standard error of estimate (percent)
	3931, Musical instruments			3942, Dolls and stuffed toys			3944, Games, toys, and children's vehicles		
Total product shipments²	781.3	100	(X)	305.4	100	(X)	2 997.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	(S)	(S)	(X)	79.4	3	47
Retail stores and outlets	(S)	(S)	(X)	(S)	(S)	(X)	-	-	(X)
Other manufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	39.8	1	52
Other nonmanufacturing establishments	(S)	(S)	(X)	(S)	(S)	(X)	1.7	(Z)	53
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	(S)	(S)	(X)	382.6	13	26
Retailers	(S)	(S)	(X)	(S)	(S)	(X)	2 421.6	81	18
Manufacturers	(S)	(S)	(X)	(S)	(S)	(X)	1.5	(Z)	49
Federal, State, and local governments	(S)	(S)	(X)	(S)	(S)	(X)	21.0	1	31
All other	(S)	(S)	(X)	(S)	(S)	(X)	49.3	2	35
Resales ⁴	(X)	3	(X)	(X)	16	(X)	(X)	10	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	(S)	(X)	(X)	29	(X)	(X)
	3949, Sporting and athletic goods, n.e.c.			3951, Pens and mechanical pencils			3952, Lead pencils and art goods		
Total product shipments²	4 349.4	100	(X)	919.0	100	(X)	456.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	698.5	16	60	161.8	18	50	-	-	(X)
Retail stores and outlets	282.5	6	59	-	-	(X)	-	-	(X)
Other manufacturing establishments	115.0	3	48	2.9	(Z)	50	1.4	(Z)	74
Other nonmanufacturing establishments	4.7	(Z)	72	-	-	(X)	-	-	(X)
Shipments to all other customers:									
Wholesalers ³	707.9	16	28	184.0	20	37	300.5	66	61
Retailers	1 669.3	38	24	504.7	55	36	72.1	16	51
Manufacturers	325.7	7	34	51.8	6	34	32.2	7	55
Federal, State, and local governments	29.8	1	34	1.2	(Z)	46	17.4	4	74
All other	516.1	12	43	12.8	1	45	33.2	7	74
Resales ⁴	(X)	13	(X)	(X)	2	(X)	(X)	20	(X)
Adjustment ratio ⁵	53	(X)	(X)	25	(X)	(X)	55	(X)	(X)
	3953, Marking devices			3955, Carbon paper and inked ribbons			3961, Costume jewelry		
Total product shipments²	455.9	100	(X)	821.1	100	(X)	1 265.0	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(S)	(S)	(X)	33.5	4	82	(S)	(S)	(X)
Retail stores and outlets	(S)	(S)	(X)	112.2	14	82	(S)	(S)	(X)
Other manufacturing establishments	(S)	(S)	(X)	77.6	9	58	(S)	(S)	(X)
Other nonmanufacturing establishments	(S)	(S)	(X)	-	-	(X)	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	(S)	(S)	(X)	194.5	24	46	(S)	(S)	(X)
Retailers	(S)	(S)	(X)	71.4	9	57	(S)	(S)	(X)
Manufacturers	(S)	(S)	(X)	185.0	23	30	(S)	(S)	(X)
Federal, State, and local governments	(S)	(S)	(X)	22.5	3	59	(S)	(S)	(X)
All other	(S)	(S)	(X)	124.5	15	64	(S)	(S)	(X)
Resales ⁴	(X)	8	(X)	(X)	4	(X)	(X)	14	(X)
Adjustment ratio ⁵	(S)	(X)	(X)	55	(X)	(X)	(S)	(X)	(X)
	3965, Fasteners, buttons, needles, and pins			3991, Brooms and brushes			3993, Signs and advertising specialties		
Total product shipments²	676.5	100	(X)	856.3	100	(X)	3 885.7	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	(D)	(D)	(X)	70.1	8	42	(S)	(S)	(X)
Retail stores and outlets	-	-	(X)	-	-	(X)	(S)	(S)	(X)
Other manufacturing establishments	39.9	6	59	6.7	1	50	(S)	(S)	(X)
Other nonmanufacturing establishments	66.8	10	59	0.4	(Z)	59	(S)	(S)	(X)
Shipments to all other customers:									
Wholesalers ³	181.2	27	48	323.4	38	44	(S)	(S)	(X)
Retailers	(D)	(D)	(X)	312.5	36	43	(S)	(S)	(X)
Manufacturers	132.3	20	20	115.4	13	57	(S)	(S)	(X)
Federal, State, and local governments	11.1	2	1	1.6	(Z)	57	(S)	(S)	(X)
All other	(D)	(D)	(X)	26.2	3	42	(S)	(S)	(X)
Resales ⁴	(X)	3	(X)	(X)	12	(X)	(X)	5	(X)
Adjustment ratio ⁵	-10	(X)	(X)	35	(X)	(X)	(S)	(X)	(X)
	3995, Burial caskets			3996, Hard surface floor coverings, n.e.c.			3999, Manufacturing industries, n.e.c.		
Total product shipments²	798.1	100	(X)	1 240.6	100	(X)	4 500.1	100	(X)
Shipments to other establishments of same company:									
Wholesale establishments (including sales offices) ³	516.4	65	41	(D)	(D)	(X)	274.1	6	68
Retail stores and outlets	-	-	(X)	-	-	(X)	457.7	10	63
Other manufacturing establishments	35.5	4	51	1.4	(Z)	45	16.4	(Z)	33
Other nonmanufacturing establishments	-	-	(X)	-	-	(X)	8.1	(Z)	66
Shipments to all other customers:									
Wholesalers ³	126.4	16	47	1 018.3	82	4	1 496.6	33	99
Retailers	63.2	8	46	(D)	(D)	(X)	720.2	16	80
Manufacturers	42.9	5	49	(D)	(D)	(X)	807.7	18	33
Federal, State, and local governments	-	-	(X)	4.4	(Z)	39	279.5	6	54
All other	13.7	2	39	3.6	(Z)	41	439.7	10	22
Resales ⁴	(X)	2	(X)	(X)	(D)	(X)	(X)	4	(X)
Adjustment ratio ⁵	42	(X)	(X)	-2	(X)	(X)	48	(X)	(X)

See footnotes at end of table.

Table 1. Manufacturers' Shipments by Product Group and Class of Customer: 1987—Con.

¹See table 2 for additional information on shipments of food products (SIC 20) to retail establishments.

²Total product shipments published in table 1, chapter 3 of the 1987 Census of Manufactures General Summary report excludes shipments of products bought and resold without further manufacture.

³Includes sales branches, sales offices, and administrative offices.

⁴Represents the percent of total product shipments, as reported on the Census of Manufactures, which respondents indicated were products bought and resold without further manufacture.

⁵Detail shown has been adjusted to account for nonresponse, over and undersampling, and inclusion of resale shipments. The inverse of the ratio shown represents a measure of the level of this adjustment. For further explanation, see Description of Estimating Procedure in the Explanatory Text.

Table 2. Shipments of Food Products to Eating and Drinking Places: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

1987 SIC code	Industry group and industry	Shipments of food products (million dollars)									Percent of shipments to retail establish- ments (col H ÷ col A)	Percent of retail shipments to eating and drinking places (col I ÷ col H)
		To retail stores and outlets within the same company				To retailers outside the company			To retail establish- ments (col B + col E)	To eating and drinking places ² (col C + col F)		
		Total ¹	Eating and drinking places ²	Other establish- ments ³	Total	Eating and drinking places ²	Other establish- ments ³					
		A	B	C	D	E	F	G	H	I	J	K
20	Food and kindred products -----	305 753.1	8 378.0	666.6	7 711.4	66 344.3	6 082.8	60 261.5	74 722.4	6 749.5	24	9
2011	Meat packing plants -----	41 226.8	145.0	1.3	143.7	5 325.1	329.2	4 996.0	5 470.2	330.5	13	6
2013	Sausages and other prepared meats -----	14 352.8	290.6	0.5	290.1	4 688.0	964.3	3 723.7	4 978.6	964.8	35	19
2015	Poultry slaughtering processing -----	14 370.9	151.9	2.0	149.9	4 305.7	212.4	4 093.2	4 457.6	214.4	31	5
2021	Creamery butter -----	1 613.5	(D)	13.2	(D)	109.9	15.0	94.9	(D)	28.2	(D)	(D)
2022	Cheese, natural and processed -----	10 775.6	282.2	(D)	(D)	761.5	(D)	(D)	1 043.7	175.2	10	17
2023	Dry, condensed, and evaporated dairy products -----	5 839.3	3.2	(D)	(D)	2 303.0	(D)	(D)	2 306.2	100.4	39	4
2024	Ice cream and frozen desserts -----	4 195.0	474.7	63.8	410.9	1 739.6	66.5	1 673.1	2 214.2	130.2	53	6
2026	Fluid milk -----	16 884.6	1 802.6	10.1	1 792.5	6 489.5	318.0	6 171.5	8 292.1	328.1	49	4
2032	Canned specialties -----	4 444.1	7.4	-	7.4	496.8	67.5	429.3	504.2	67.5	11	13
2033	Canned fruits and vegetables -----	12 244.4	587.8	-	587.8	4 091.8	513.9	3 577.9	4 679.6	513.9	38	11
2034	Dehydrated fruits, vegetables, and soups -----	2 079.2	48.7	-	48.7	297.3	1.2	296.1	346.0	1.2	17	(Z)
2035	Pickles, sauces, and salad dressings -----	4 479.3	22.6	-	22.6	756.3	78.4	677.9	778.9	78.4	17	10
2037	Frozen fruits and vegetables -----	6 253.7	-	-	-	1 262.8	39.9	1 222.8	1 262.8	39.9	20	3
2038	Frozen specialties, n.e.c. -----	5 252.1	129.0	1.0	128.0	933.0	64.6	868.4	1 062.0	65.6	20	6
2041	Flour and other grain mill products -----	4 690.1	-	-	-	244.0	0.5	243.5	244.0	0.5	5	(Z)
2043	Cereal breakfast foods -----	5 081.1	-	-	-	(D)	-	(D)	(D)	-	(D)	(X)
2044	Rice milling -----	1 257.5	(D)	-	(D)	219.3	0.4	218.9	(D)	0.4	(D)	(Z)
2045	Prepared flour mixes and doughs -----	2 821.6	12.6	0.1	12.5	952.4	6.3	946.1	965.0	6.4	34	1
2046	Wet corn milling -----	4 446.2	-	-	-	2.1	-	2.1	2.1	-	(Z)	(X)
2047	Dog and cat food -----	4 710.2	29.5	-	29.5	2 062.1	-	2 062.1	2 091.7	-	44	(X)
2048	Prepared feeds, n.e.c. -----	10 712.9	418.2	-	418.2	1 984.7	1.9	1 982.8	2 402.9	1.9	22	(Z)
2051	Bread, cake, and related products -----	13 513.0	1 327.0	71.1	1 255.9	2 507.2	733.8	1 773.4	3 834.2	804.9	28	21
2052	Cookies and crackers -----	5 853.2	168.9	-	168.9	1 969.1	5.9	1 963.2	2 138.0	5.9	37	(Z)
2053	Frozen bakery products, except bread -----	1 372.7	33.7	0.2	33.5	243.9	16.9	227.0	277.6	17.1	20	6
2061	Raw cane sugar -----	1 223.0	-	-	-	2.8	-	2.8	2.8	-	(Z)	(X)
2062	Cane sugar refining -----	2 438.6	-	-	-	544.6	-	544.6	544.6	-	22	(X)
2063	Beet sugar -----	1 831.7	-	-	-	220.4	0.7	219.7	220.4	0.7	12	(Z)
2064	Candy and other confectionery products -----	6 910.0	215.0	-	215.0	1 769.0	22.3	1 746.8	1 984.1	22.3	29	1
2066	Chocolate and cocoa products -----	3 122.4	49.3	24.0	25.3	(D)	13.4	(D)	(D)	37.4	(D)	(D)
2067	Chewing gum -----	868.7	-	-	-	41.3	-	41.3	41.3	-	5	(X)
2068	Salted and roasted nuts and seeds -----	2 064.4	(D)	-	(D)	528.5	6.7	521.9	(D)	6.7	(D)	(D)
2074	Cottonseed oil mills -----	434.6	-	-	-	24.5	-	24.5	24.5	-	6	(X)
2075	Soybean oil mills -----	7 728.9	-	-	-	(D)	-	(D)	(D)	-	(D)	(X)
2076	Vegetable oil mills, n.e.c. -----	490.0	-	-	-	(Z)	-	(Z)	(Z)	(Z)	(X)	(X)
2077	Animal and marine fats and oils -----	2 168.0	-	-	-	5.9	-	5.9	5.9	-	(Z)	(X)
2079	Edible fats and oils, n.e.c. -----	4 694.1	28.3	-	28.3	255.0	31.4	223.6	283.4	31.4	6	11
2082	Malt beverages -----	13 521.1	0.1	-	0.1	78.9	18.1	60.7	79.0	18.1	1	23
2083	Malt -----	534.3	-	-	-	-	-	-	-	-	(X)	(X)
2084	Wines, brandy, and brandy spirits -----	3 162.3	1.0	-	1.0	248.6	45.5	203.2	249.6	45.5	8	18
2085	Distilled and blended liquors -----	3 187.8	-	-	-	(D)	0.6	(D)	(D)	0.6	(D)	(D)
2086	Bottled and canned soft drinks -----	19 611.7	787.9	194.8	593.1	5 908.1	786.0	5 122.1	6 696.0	980.8	34	15
2087	Flavoring extracts and syrups, n.e.c. -----	4 925.6	18.2	-	18.2	999.1	883.0	1 116.1	1 017.3	883.0	21	87
2091	Canned and cured fish and seafoods -----	862.2	4.2	-	4.2	217.1	2.3	214.8	221.3	2.3	26	1
2092	Fresh or frozen prepared fish -----	5 103.7	19.1	-	19.1	745.9	88.3	657.6	765.1	88.3	15	12
2095	Roasted coffee -----	5 466.6	142.6	7.7	134.9	2 023.5	329.8	1 693.7	2 166.1	337.5	40	16
2096	Potato chips and similar snacks -----	5 005.8	184.1	89.6	94.5	1 911.1	49.6	1 861.5	2 095.2	139.2	42	7
2097	Manufactured ice -----	282.7	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
2098	Macaroni and spaghetti -----	974.4	59.7	-	59.7	119.1	0.3	118.8	178.8	0.3	18	(Z)
2099	Food preparations, n.e.c. -----	10 670.7	395.8	180.0	215.8	3 924.9	99.8	3 825.1	4 320.7	279.8	40	6

¹Total product shipments is a census universe total as published in table 1, chapter 3 of the 1987 Census of Manufactures General Summary report.

²Includes shipments to restaurants, cafeterias, taverns, nightclubs, etc.

³Includes shipments to food stores, department stores, mail order houses, and chain stores.



APPENDIX A.

Definitions of Class of Customer

WHOLESALE ESTABLISHMENTS OF THE SAME COMPANY (INCLUDING SALES OFFICES)

These are separately operated wholesale establishments owned by or affiliated with manufacturing companies. Included are all sales branches and offices operated as separate establishments owned by manufacturing companies, utilized primarily for selling at wholesale the products manufactured by other establishments of the same company; although they deal, to some extent, in products manufactured by other companies. Shipments by manufacturing establishments to or via such outlets include shipments made either directly to such branches and offices or to outside customers, on order, from such branches and offices.

OTHER WHOLESALERS

This category comprises independent wholesalers purchasing primarily for resale to other businesses; that is, to retailers, to industrial, commercial, institutional, or professional customers, and to other wholesalers. Wholesalers typically do not sell directly to household consumers and farmers. Included as wholesalers are industrial distributors, drop shippers or desk jobbers, voluntary group wholesalers, and retail cooperative warehouses. For the purpose of this report, shipments by meat and poultry manufacturers to meat jobbers and retailers were to be reported as shipments to wholesalers. Textile mill products, other than knitting mill products, shipped to piece goods converters were to be reported as shipments to wholesalers. Shipments and sales to domestic exports also were treated as shipments to wholesalers.

RETAILERS

This category comprises establishments reselling merchandise at retail; that is, for personal, household, or farm consumption. This customer class includes chain stores, mail order houses, department stores, and independent retailers, including independent route salesmen such as bakery and dairy truck distributors selling directly to households. Retail stores operated by a manufacturing company were reported separately from independent retailers.

MANUFACTURERS

For other manufacturing plants of the same company, this item represents interplant transfers (for further processing or manufacture) from one manufacturing plant of the same company to another. For manufacturers outside the company, it represents shipments or sales to other company manufacturing establishments. Manufacture, in addition to activities commonly recognized as such, includes such activities as meatpacking, bakeries and bottling plants, jobbers and converters of knit goods, sheet metal fabricators fabricating products away from construction sites, feed mixers, logging camps, sawmills, machine shops, and lapidary work.

FEDERAL, STATE, AND LOCAL GOVERNMENTS

This category includes shipments and sales to branches and agencies of the Federal Government, including military post exchanges, ships' stores, and similar units. Corporations owned by the Federal Government are similarly included as are shipments and sales under the Mutual Security Program and the Military Defense Assistance Program. Only direct shipments and sales to the Federal Government are covered in this customer class; that is, indirect sales by subcontractors were treated as the class of customer of the prime contractor, usually as a manufacturer. Shipments to State and local governments include shipments to agencies of State and local governments.

ALL OTHER

This category includes private firms and businesses and institutions not considered manufacturers, wholesalers, or retailers. Included are construction companies; mining establishments; transportation; utilities; and hotels, restaurants, and other service-type businesses. Hospitals and schools are similarly included. Also included are export shipments and sales directly to foreign customers and sales to the company's foreign subsidiaries and affiliates. Shipments and sales to domestic exports were treated as shipments to wholesalers.

APPENDIX B.

Report Forms and Product Reference List



U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

FORM
MC-9601

1987 CENSUS OF MANUFACTURES

DISTRIBUTION OF MANUFACTURERS' SALES BY CLASS OF CUSTOMER

OMB No. 0607-0556; Approval Expires 06/89

NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

In correspondence pertaining to this report, please refer to this Census File Number (CFN)

Employer Identification (EI) Number

MC-9601

Please complete this form and RETURN TO

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47134

DUE DATE: FEBRUARY 15, 1988

If you cannot file by the due date, a time extension request should be sent to the above address; please include your 11-digit Census File Number (CFN).

Note — Please read all instructions on this page before answering items 1—3 on the reverse.

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

GENERAL INSTRUCTIONS

(See also specific instructions with Product Group Reference List)

SURVEY DESCRIPTION

As part of the 1987 Census of Manufactures, the Bureau of the Census is conducting this survey on Distribution of Manufacturers' Sales by Class of Customer. This survey is conducted every 10 years and was last done as part of the 1977 Census of Manufactures. (Similar information on the sales of wholesalers by class of customer is collected in the Census of Business for 1987 on forms CB-5012—CB-5199.) This survey will provide a current analysis of the marketing channels through which goods move from the manufacturer to the user or consumer. The results are needed for the improvement of the national income and product statistics.

HOW TO REPORT — You are requested to provide a summary company level report on the shipment of groups of products as reported by your manufacturing establishments on census forms for 1987. The reference list which accompanies this report shows the product group categories for which class of customer information is to be reported. These 4-digit categories represent combinations of the 7 digit product shipments reported in item 18B of your census forms based on the first 4 digits of the 7 digit code. (A detailed example illustrating this cumulative process can be found on pages 2 and 3 of the reference list.) Report at FOB factory value.

Please indicate at the top of the columns on this MC-9601 report form those product group codes which best fit the description of your manufacturing activities. If you reported values for products bought and sold in the same condition (resales), code 99989 00 6 of your census report form, allocate that amount to the appropriate product group. Please estimate the percent of each product group which is resales on line 11. Exclude miscellaneous receipts and receipts for contract and commission work.

We appreciate that there is no uniform system of sales analysis and that completeness of records varies considerably among companies. Therefore, it will be necessary for companies to derive estimates based on any information available as to the type of economic activity of their customers. Approximations are acceptable.

DESCRIPTION OF CLASS OF CUSTOMER

Shipments to other establishments of this company —

These shipments should be allocated on lines 1—4, according to type of business activity of these locations.

Wholesale establishments — line 1 — Includes not only shipments to wholesale locations but also shipments to or on order from sales branches, sales offices, and administrative offices which operate primarily to sell products manufactured by your company. These activities are reported on Census of Business Forms CB-5012—CB-5199 and on Form ES 9200, Central Administrative Offices and Auxiliaries.

Retail stores and outlets — line 2 — Report shipments to separately operated retail stores which also report in the Census of Business for this company.

Manufacturing establishments — line 3 — Report all transfers or shipments from one manufacturing plant of this company to another whether for further processing, for use as a material or supply, or for resales by the other plants.

Other establishments — line 4 — Report shipments to other plants of this company such as mining, construction, transportation, communication, services, etc.

Shipments to other companies, governments, individuals, and for export —

These shipments should be allocated according to type of customer on lines 5—9. Report shipments on consignment as though the merchandise had been sold at the time of the shipment. If such consignee shipments are to agents, consider the agent as a wholesaler.

Wholesalers — line 5 — Report shipments to companies that are purchasing primarily to resell the products to other businesses or institutions. Include industrial distributors, drop shippers, desk jobbers, voluntary group wholesalers, retail cooperative warehouses, and exporters.

Retailers — line 6 — Report shipments to eating and drinking places, chain stores, mail order houses, department stores, independent retailers, including independent route salesman such as bakery or dairy truck distributors who sell directly to households. Include shipments to lumber yards; paint, glass, and wallpaper stores; electrical supply stores; heating equipment dealers; farm and garden supply stores; and farm equipment dealers.

Manufacturers — line 7 — Include as manufacturers, food processors such as meat packers, bakeries, dairies, and bottling plants; sheet metal operations; feed mixers; loggers; sawmills; printing; publishing; ready mixed concrete; apparel jobbers; and machine shops.

Federal, State, and local governments — line 8 — Include sales to all branches and agencies of all levels of government and to corporations owned by the Federal Government. If you have sales as a subcontractor on a government contract, report your sales according to the activity of the prime contractor for whom you did the work.

Other — line 9 — Includes the following:

- a. Construction companies
- b. Mining companies
- c. Utility companies
- d. Transportation companies
- e. Private and public institutions (e.g., hospitals and schools)
- f. Banks
- g. Hotels
- h. Individuals
- i. Households
- j. Farmers
- k. Exports (Include products directly exported by your company. Products shipped to export intermediaries should be reported as shipped to wholesalers.)

REMARKS — Please use this space for any explanations that may be essential in understanding your reported data.

CERTIFICATION — This report is substantially accurate and has been prepared in accordance with instructions.

Name of person to contact regarding this report — Print or type

Telephone
Area code Number Extension

FROM: Mo. Year

TO: Mo. Year

Period covered by this report

Address — Number and street

Signature of authorized person

City

State

ZIP Code

Title

Date

DISTRIBUTION OF SALES BY CLASS OF CUSTOMER DURING 1987 (See Product Group Reference List for codes and descriptions.)

Enter 4-digit product group codes (See product group reference list.) If you need additional columns, use extra worksheets. →		Key	Code		Code		Code		Code		Code		Code		Code		Code	
		001	Mill.	Thou.	Dol.	Mill.	Thou.	Dol.	Mill.	Thou.	Dol.	Mill.	Thou.	Dol.	Mill.	Thou.	Dol.	
Item 1 — Distribution of sales by class of customer																		
Line No.	Class of customer																	
1	Shipments to other establishments of this company	002	\$			\$			\$			\$			\$			
2	Wholesale establishments include those shipments to or on order from your separate sales branches, sales offices, and administrative offices)																	
3	Retail stores and outlets (See item 3)	003																
4	Manufacturing establishments (usually for further processing)	004																
5	Other establishments (mining, construction, service, transportation, communication, etc.)	005																
6	Shipments to other companies, governments, individuals, and for export	006																
7	Wholesalers	007																
8	Retailers (See item 3)	008																
9	Manufacturers	009																
10	Federal, State, and local governments	010																
11	Other (including construction, mining, utility, and transportation companies; private and public institutions; banks, hotels, and other service-type businesses; and for exports, households, farmers, etc.)	011																
TOTAL (Sum of lines 1-9 should approximate the sum of product shipments reported in Item 18 of your Census of Manufactures report, including an allowance for any products bought and sold without further fabrication)																		
Item 2 — Approximate percent of shipments reported on line 10 that are products bought and sold without further fabrication by the establishment making the shipment																		
Item 3 — If data are reported on line 2 or 6, do they include shipments of food products to eating and drinking places?																		
<input type="checkbox"/> 1 Yes <input type="checkbox"/> 2 No If "Yes," estimate the percentage of retail shipments going to eating and drinking places.		014																



U. S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

FORM

MC-9602

1987 CENSUS OF MANUFACTURES

DISTRIBUTION OF MANUFACTURERS' SALES BY CLASS OF CUSTOMER

OMB No. 0607-0558; Approval Expires 06/89

NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Please complete this
form and RETURN TO

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47134

DUE DATE: FEBRUARY 15, 1988

If you cannot file by the due date, a time extension request should be sent to the above address; please include your 11-digit Census File Number (CFN).

Note — Please read all instructions on this page before answering items 1—3 on the reverse.

In correspondence pertaining to this report,
please refer to this Census File Number (CFN)

**Employer Identification (EI)
Number**

MC-9602

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

INSTRUCTIONS

► SURVEY DESCRIPTION

As part of the 1987 Census of Manufactures, the Bureau of the Census is conducting this survey on Distribution of Manufacturers' Sales by Class of Customer. This survey is conducted every 10 years and was last done as part of the 1977 Census of Manufactures. (Similar information on the sales of wholesalers by class of customer is being collected in the Census of Business for 1987 on forms CB-5012—CB-5199.) This survey will provide a current analysis of the marketing channels through which goods move from the manufacturer to the user or consumer. The results are needed for the improvement of the national income and product statistics.

► HOW TO REPORT

— This report provides a summary of the distribution of the shipments of this establishment by class of customer. The total value of products distributed should approximately equal the total value reported on the accompanying 1987 Census of Manufactures report form.

This report will measure the flow of products from this establishment to its customers. Please report in column (B) the value of all of your products, whether made in this establishment or purchased and sold without further fabrication, shipped to each of the class of customer categories listed in column (A). Report shipments on consignment as though the merchandise had been sold at the time of the shipment. If such consignment shipments are to agents, consider the agent as a wholesaler.

We appreciate that there is no uniform system of sales analysis and that completeness of records varies considerably among companies. Therefore, it will be necessary for companies to derive estimates based on any information available as to the type of economic activity of their customers. Approximations are acceptable.

► DESCRIPTION OF CLASS OF CUSTOMER

Shipments to other establishments of this company —

These shipments should be allocated on lines 1—4, according to type of business activity of these locations.

- **Wholesale establishments — line 1** — Include not only shipments to wholesale locations but also shipments to or on order from sales branches, sales offices, and administrative offices which operate primarily to sell products manufactured by your company. These activities are reported on Census of Business Forms CB-5012—CB-5199 and on Form ES-9200, Central Administrative Offices and Auxiliaries.
- **Retail stores and outlets — line 2** — Report shipments to separately operated retail stores which also report in the Census of Business for this company.
- **Manufacturing establishments — line 3** — Report all transfers or shipments from one manufacturing plant of this company to another whether for further processing, for use as a material or supply, or for resale by the other plants.
- **Other establishments — line 4** — Report shipments to other plants of this company such as mining, construction, transportation, communication, services, etc.

Shipments to other companies, governments, individuals, and for export —

These shipments should be allocated according to type of customer on lines 5—9. Report shipments on consignment as though the merchandise had been sold at the time of the shipment. If such consignment shipments are to agents, consider the agent as a wholesaler.

- **Wholesalers — line 5** — Report shipments to companies that are purchasing primarily to resell the products to other businesses or institutions. Include industrial distributors, drop shippers, desk jobbers, voluntary group wholesalers, retail cooperative warehouses, and exporters.
- **Retailers — line 6** — Report shipments to eating and drinking places, chain stores, mail order houses, department stores, independent retailers, including independent route salesmen such as bakery or dairy truck distributors who sell directly to households. Include shipments to lumber yards; paint, glass, and wallpaper stores; electrical supply stores; heating equipment dealers; farm and garden supply stores; and farm equipment dealers.
- **Manufacturers — line 7** — Include as manufacturers, food processors such as meat packers, bakeries, dairies, and bottling plants; sheet metal operations; feed mixers; loggers; sawmills; printing; publishing; ready mixed concrete; apparel jobbers; and machine shops.
- **Federal, State, and local governments — line 8** — Include sales to all branches and agencies of all levels of government and to corporations owned by the Federal Government. If you have sales as a subcontractor on a government contract, report your sales according to the activity of the prime contractor for whom you did the work.
- **Other — line 9** — Includes the following:
 - a. Construction companies
 - b. Mining companies
 - c. Utility companies
 - d. Transportation companies
 - e. Private and public institutions (e.g., hospitals and schools)
 - f. Banks
 - g. Hotels
 - h. Individuals
 - i. Households
 - j. Farmers
 - k. Exports (Include products directly exported by your company. Products shipped to export intermediaries should be reported as shipped to wholesalers.)

REMARKS — Please use this space for any explanations that may be essential in understanding your reported data.

CONTINUE ON REVERSE →

Item 1 — Distribution of sales					
Line No.	Class of customer (A)	Key	Value of products shipped (B)		
			Millions	Thousands	Dollars
1	SHIPMENTS TO OTHER ESTABLISHMENTS OF THIS COMPANY	102	\$		
2		103			
3		104			
4		105			
5	SHIPMENTS TO OTHER COMPANIES, GOVERNMENTS, INDIVIDUALS, AND FOR EXPORT	106			
6		107			
7		108			
8		109			
9		110			
10	TOTAL (Sum of lines 1—9 should approximate the sum of product shipments reported in item 18B, of your Census of Manufactures reports, including an allowance for any products bought and sold without further fabrication.)		111	\$	
11	Receipts for work done for others on their materials (same as contract receipt values in item 18B on Census Manufactures report form)		112		
12	Miscellaneous receipts (sum of miscellaneous receipts reported in item 18B on Census of Manufactures report form)		113		
13	TOTAL (Sum of lines 10—12 should be the same as total value of shipments reported in item 18B of your Census of Manufactures report form.)		112	\$	
Item 2 — Approximate percent of shipments reported on line 10 that are products bought and sold (resales) without further fabrication by the establishment making the shipment.			115	Percentage	
Item 3 — If data are reported on line 2 or 6, do they include shipments of food products to eating and drinking places?					
<input type="checkbox"/> 1 Yes — If "Yes," estimate the percentage of retail shipments going to eating and drinking places. <input type="checkbox"/> 2 No			117	%	

REMARKS — Please use this space for any explanations that may be essential in understanding your reported data.

CERTIFICATION — This report is substantially accurate and has been prepared in accordance with instructions.					
Name of person to contact regarding this report — Print or type		Telephone Area code Number Extension		FROM: Mo. Year	TO: Mo. Year
Address — Number and street		Period covered by this report		Signature of authorized person	
City	State	ZIP Code	Title	Date	



U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

FORM

MC-9603

1987 CENSUS OF MANUFACTURES

DISTRIBUTION OF MANUFACTURERS' SALES BY CLASS OF CUSTOMER

OMB No. 0607-0558; Approval Expires 06/89

NOTICE — Response to this inquiry is required by law (title 13, U.S. Code). By the same law, your report to the Census Bureau is confidential. It may be seen only by sworn Census employees and may be used only for statistical purposes. The law also provides that copies retained in your files are immune from legal process.

Please complete this form and RETURN TO

BUREAU OF THE CENSUS
1201 East Tenth Street
Jeffersonville, IN 47134

DUE DATE: FEBRUARY 15, 1988

If you cannot file by the due date, a time extension request should be sent to the above address; please include your 11-digit Census File Number (CFN).

Note — Please read all instructions on this page before answering items 1–3 below.

In correspondence pertaining to this report, please refer to this Census File Number (CFN)

Employer Identification (EI) Number

MC-9603

Please correct errors in name, address, and ZIP Code. ENTER street and number if not shown.

INSTRUCTIONS

► SURVEY DESCRIPTION

As part of the 1987 Census of Manufactures, the Bureau of the Census is conducting this survey on Distribution of Manufacturers' Sales by Class of Customer. This survey is conducted every 10 years and was last done as part of the 1977 Census of Manufactures. (Similar information on the sales of wholesalers by class of customer is being collected in the Census of Business for 1987 on forms CB-5012—CB-5199.) This survey will provide a current analysis of the marketing channels through which goods move from the manufacturer to the user or consumer. The results are needed for the improvement of the national income and product statistics.

► HOW TO REPORT

— This report provides a summary of the distribution of the shipments of this establishment by class of customer. The total value of products distributed should approximately equal the total value reported on the accompanying 1987 Census of Manufactures report form.

This report will measure the flow of products from this establishment to its customers. Please report in column (B) the value of all of your products, whether made in this establishment or purchased and sold without further fabrication, shipped to each of the class of customer categories listed in column (A). Report shipments on consignment as though the merchandise had been sold at the time of the shipment. If such consignment shipments are to agents, consider the agent as a wholesaler.

We appreciate that there is no uniform system of sales analysis and that completeness of records varies considerably among companies. Therefore, it will be necessary for companies to derive estimates based on any information available as to the type of economic activity of their customers. Approximations are acceptable.

• **Wholesalers — line 1** — Report shipments to companies that are purchasing primarily to resell the products to other businesses or institutions. Include industrial distributors, drop shippers, desk jobbers, voluntary group wholesalers, retail cooperative warehouses, and exporters.

• **Retailers — line 2** — Report shipments to eating and drinking places, chain stores, mail order houses, department stores, independent retailers, including independent route salesmen such as bakery or dairy truck distributors who sell directly to households. Include shipments to lumber yards; paint, glass, and wallpaper stores; electrical supply stores; heating equipment dealers; farm and garden supply stores; and farm equipment dealers.

• **Manufacturers — line 3** — Include as manufacturers, food processors such as meat packers, bakeries, dairies, and bottling plants; sheet metal operations; feed mixers; loggers; sawmills; printing; publishing; ready mixed concrete; apparel jobbers; and machine shops.

• **Federal, State, and local governments — line 4** — Include sales to all branches and agencies of all levels of government and to corporations owned by the Federal Government. If you have sales as a subcontractor on a government contract, report your sales according to the activity of the prime contractor for whom you did the work.

• **Other — line 5** — Includes the following:

- a. Construction companies
- b. Mining companies
- c. Utility companies
- d. Transportation companies
- e. Private and public institutions (e.g., hospitals and schools)
- f. Banks
- g. Hotels
- h. Individuals
- i. Households
- j. Farmers

k. Exports (include products directly exported by your company. Products shipped to export intermediaries should be reported as shipped to wholesalers.)

Item 1 — Distribution of sales

Line No.	Class of customer (A)	Key	Value of products shipped (B)		
			Millions	Thousands	Dollars
1	Wholesalers	201	\$		
2	Retailers (See item 3)	202			
3	Manufacturers	203			
4	Federal, State, and local governments	204			
5	Other (including construction, mining, utility, and transportation companies; private and public institutions; banks, hotels, and other service-type businesses; and for exports. Include also direct sales to individual households, farmers, etc.)	205			
6	TOTAL (Sum of lines 1–5 should approximate the sum of product shipments reported in item 18B, of your Census of Manufactures reports, including an allowance for any products bought and sold without further fabrication.)	206	\$		
7	Receipts for work done for others on their materials (same as contract receipt values in item 18B on Census of Manufactures report form)	207			
8	Miscellaneous receipts (sum of miscellaneous receipts reported in item 18B on Census of Manufactures report form)	208			
9	TOTAL (Sum of lines 6–8 should be the same as total value of shipments reported in item 18B of your Census of Manufactures report form.)	209	\$		

Item 2 — Approximate percent of shipments reported on line 6 that are products bought and sold (resales) without further fabrication by the establishment making the shipment.

Percentage

210 %

Item 3 — If data are reported on line 2, do they include shipments of food products to eating and drinking places?

211 ☐ Yes — If "Yes," estimate the percentage of retail shipments going to eating and drinking places.

2 ☐ No

212 %

REMARKS — Please use this space for any explanations that may be essential in understanding your reported data.

CERTIFICATION — This report is substantially accurate and has been prepared in accordance with instructions.

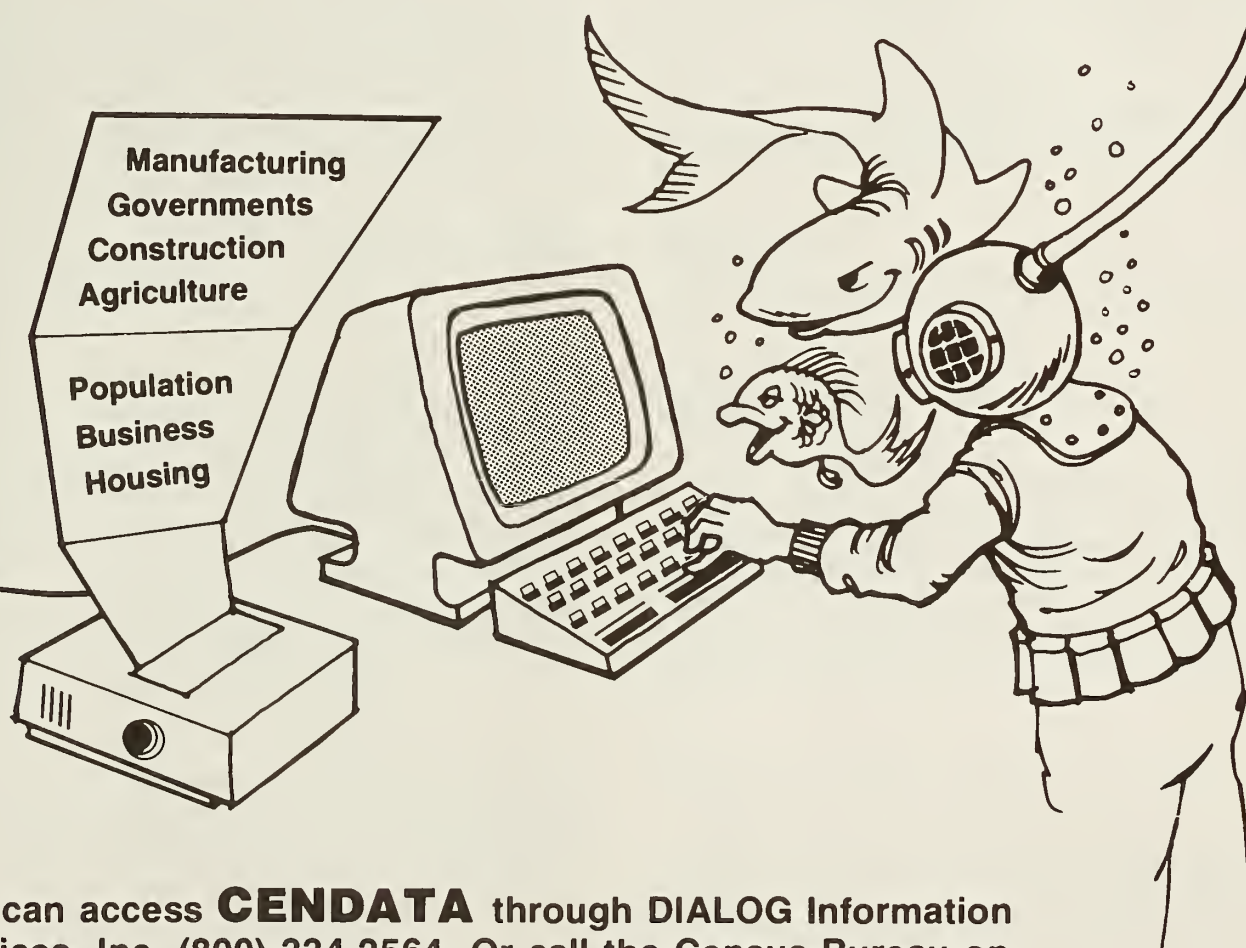
Name of person to contact regarding this report — Print or type		Telephone		FROM: Mo. Year		TO: Mo. Year		
		Area code	Number	Extension				
Address — Number and street					Signature of authorized person			
City		State	ZIP Code		Title		Date	

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PUBLICATION PROGRAM

1987 CENSUS OF MANUFACTURES

Publications of the 1987 Census of Manufactures, containing preliminary and final data on manufacturing establishments in the United States, are described below. Publications order forms for the specific reports may be obtained from any Department of Commerce district office or from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.

Preliminary Reports

Industry series—83 reports (MC87-I-20A(P) to -39D(P))

Preliminary industry data are issued in 83 separate reports covering 459 industries. Preliminary summary data for the U.S. and States are released in one report.

Final Reports

Industry series—83 reports (MC87-1-20A to -39D)

Each of the 83 reports provides information for a group of related industries ("dairy products" includes industries for butter, cheese, milk, etc.). Final figures for the United States are shown for each of the 459 manufacturing industries on quantity and value of products shipped and materials consumed, cost of fuels and electric energy, capital expenditures, assets, rents, inventories, employment, payroll, payroll supplements, hours worked, value added by manufacture, number of establishments, and number of companies. Comparative statistics for earlier years are provided where available.

For each industry, data on value of shipments, value added by manufacture, capital expenditures, employment, and payroll are shown by employment-size class of establishment, State, and degree of primary product specialization.

Geographic area series—51 reports (MC87-A-1 to -51)

A separate report is being published for each State and the District of Columbia. Each report presents data for industry groups and industries on value of shipments, cost of materials, value added by manufacture, employment, payroll, hours worked, new capital expenditures, and number of manufacturing establishments for the State, MSA's, counties, and selected places. Comparative statistics for earlier census years are shown for the State and large MSA's. Manufacturing totals are presented for each county and for places with significant manufacturing activity. Detailed statistics (including inventories, assets, rents, and energy costs) are presented only in statewide totals.

Subject series—7 reports (MC87-S-1 to -7)

Each of the seven reports contains detailed statistics for an individual subject, such as concentration ratios in manufacturing, type of organization, textile machinery in place, distribution of sales by class of customer, manufacturers' shipments to the Federal Government, and a general national-level summary.

Reference series—1 report (MC87-R-1)

The Numerical List of Manufactured and Mineral Products includes a description of the principal products and services published in the 1987 Censuses of Manufactures and Mineral Industries.

Location of Manufacturing Plants—1 report (MC87-LM)

This report includes data for number of establishments by four-digit SIC industry and by employment-size class for counties, incorporated places of 2,500 inhabitants or more, and zip codes for each State. (This report is available only on magnetic tape and CD-ROM.)

Analytical Reports—3 reports (AR87-1 to -3)

Exports From Manufacturing Establishments (AR87-1)

This report presents data on exports by two- and three-digit SIC industry groups for the United States and States. Information is presented on value of direct report shipments and estimates of the employment required to manufacture these products. Included are estimates of employment in manufacturing and nonmanufacturing establishments that supply parts, materials, and services for production of manufactured exports.

Selected Characteristics of Manufacturing Establishments That Export (AR87-2)

This report presents data on the number of manufacturing companies and establishments that export by major group, State, employment size, and ratios of exports to shipments.

Indexes of Production (AR87-3)

The indexes presented in this report are designed to measure the change in physical output of each manufacturing and mineral industry between 1982 and 1987.

MICROFICHE

Every final published report in the 1987 Census of Manufactures will be available on microfiche.

PUBLIC-USE COMPUTER TAPES AND COMPACT DISCS

Data from the final industry series, geographic area series, and the Location of Manufacturing Plants report will be available on public-use computer tapes and compact discs-read only memory (CD-ROM). These tapes will provide the same information found in the final reports. Computerized data products are available for users who wish to summarize, rearrange, or process large amounts of data. These products, with corresponding technical documentation, are sold by Data User Services Division, Customer Services (Tapes), Bureau of the Census, Washington, DC 20233.

OTHER ECONOMIC CENSUSES REPORTS

Data on retail trade, wholesale trade, service industries, construction industries, mineral industries, transportation, enterprise statistics, minority-owned businesses, and women-owned businesses also are available from the 1987 Economic Censuses. A separate series of reports covers the censuses of outlying areas—Puerto Rico, Virgin Islands of the United States, Guam, and the Northern Mariana Islands. Separate announcements describing these reports are available free of charge from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233.



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